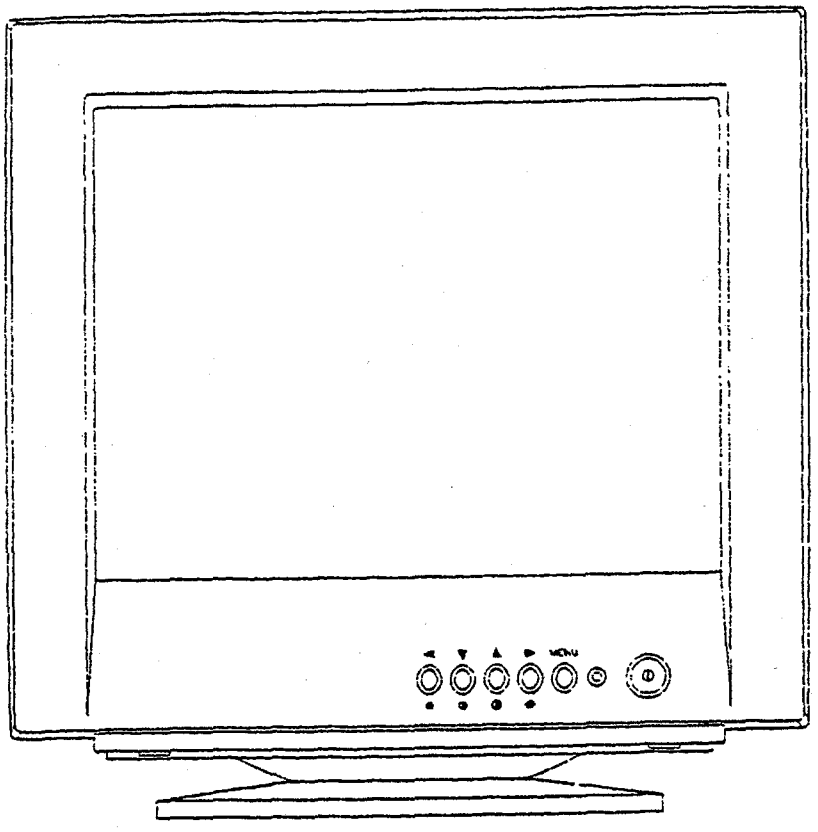
VIDE-V25086

PEACOCK

PEACOCK AG
GRAF ZEPPELIN-STR.14
D-33181 Wünnenberg-Haaren

SERVICE-MANUAL



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ATTACHMENT

Circuit Diagram

General Features

The monitor is equipped with the following general features:

- Flicker-free high resolution color monitor.

- Horizontal scanning frequencies from 30 KHz to 70KHz
  (using automatic scanning method).

- Vertical scanning frequencies from 50Hz to 120Hz
  (using automatic scanning method).

- Microprocessor-based design with digital controls and OSD display.
  (memory for timing modes)

- 10 Presetting and 10 user programmable modes.

- Compatible with standard IBM VGA, 8514A, XGA, Super VGA modes as well as newly proposed VESA ergonomic standards.

- A 17-inch digital display and a 0.28mm dot pitch display.

- Horizontal resolution: 1280 dots
  Vertical resolution: 1024 lines

- Analog signal inputs to display unlimited number of colors depending on video signal input.

- Universal auto-switched power supply.

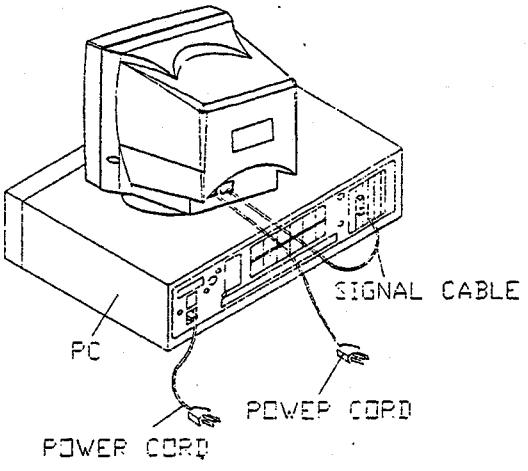
- 15-pin D-sub connector .

- Removable tilt-swivel base
  Tilt:15 degrees
  Swivel: 90 degrees

- VESA-standard power management and DDC 1/2B.

Monitor Connection

Figure 1:
Connecting
the Monitor

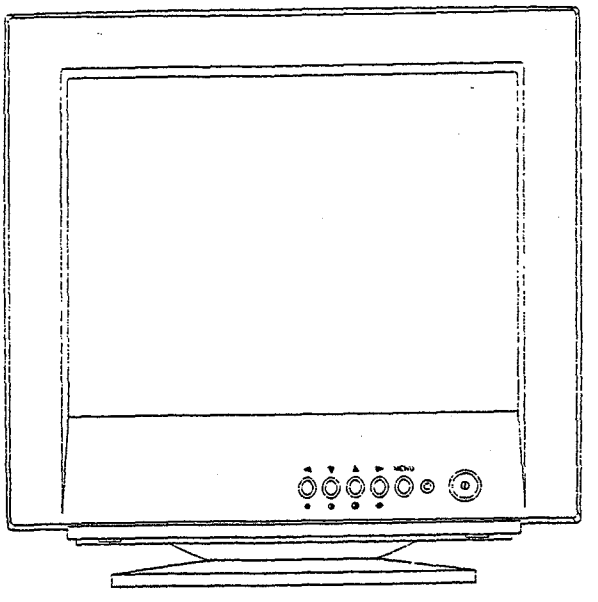


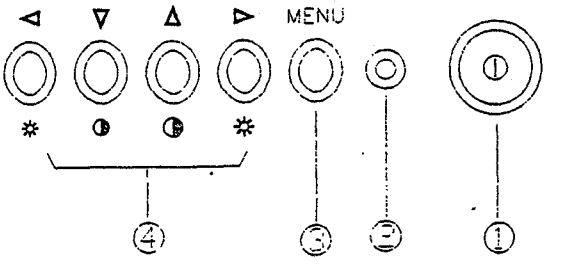
1 Working with PC

Connect the signal cable (from the monitor) to the D-connector on the back of PC. See Figure1 as shown above.

2 Connect the power cord to the specified outlet, and turn on the power switches of both PC and monitor. Then the picture will be displayed on the CRT screen. Within about 30 seconds adjust the picture with related adjust controls to obtain optimum picture.

Operation and User Adjustment





Control Panel

Figure 2 shows the position of following operating units:

①Power ON / OFF Switch **② Power LED**

③ Menu – Displays OSD menu & Scrolls through OSD menu

④ Function Control Key – Adjust level of selected items

On-Screen Display Guide

I. Contrast & Brightness

1) Press "▲" "▼" to activate and make the contrast adjustment shown by the OSD bar. The bar moves rightward indicating contrast increase and leftward indicating contrast decrease.

Figure5 Contrast Adjustment Bar

2) Press "◀" "▶" to activate and make the brightness adjustment shown by the OSD bar. The bar moves rightward indicating brightness increase and leftward indicating brightness decrease.

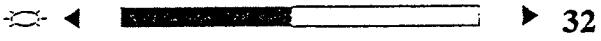


Figure6 Brightness Adjustment Bar

II. OSD Function Menu

1) Press "Menu" key to enter the OSD menu containing 10 functions as shown in figure 7.

2) Select adjustment function

Please scroll the preferred function from left-right sequence by pressing "Menu" key. You may return to the previous item by keeping pressing the "Menu" key.

3) Adjustment Operation

Make the adjustment using the four function control keys. Please refer to the Figure 7 for advanced operation.

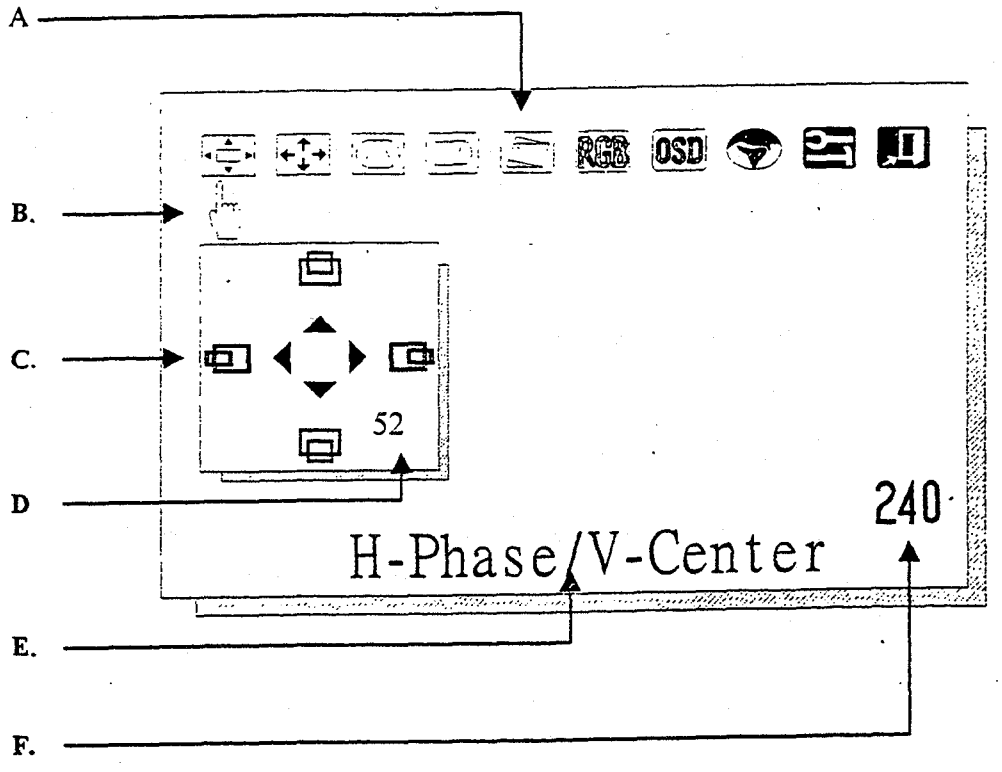


Figure 7 Function Menu

A. OSD contains 10 icons representing the following function adjustments: H-Phase/V-Center, H-Size/V-Size, Pincushion/Trapezoid, PinBalance/Corner, Parallel/Tilt, RGB-Gain, OSD Position, Language, Tool, and Exit.

B. Hand-shaped pointer indicates the current function selected.

C. There are four adjustments for each function selected. The icon being selected will turn into a different color.

D. The setting value will appear during adjustment.

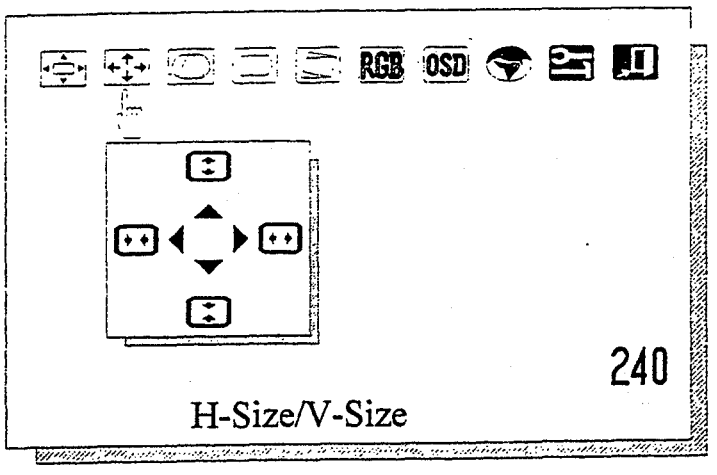
E. Displaying the message of current function selected.

F. The number in the right corner indicates how long the OSD will last for displaying.

① **H-Phase & V-Center function window**

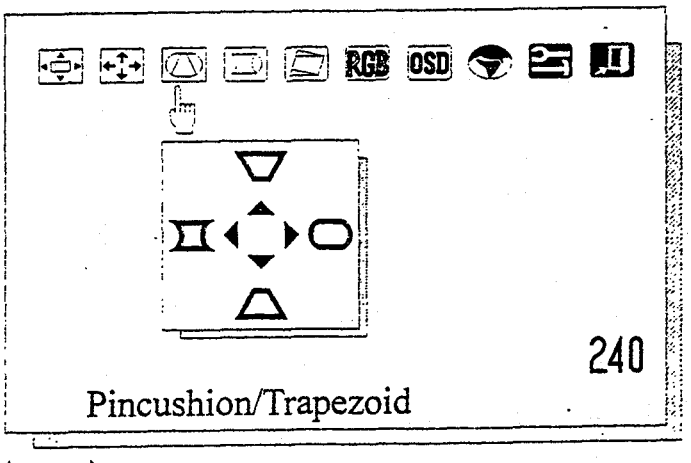
Press ◀ or ▶ key to reposition the picture leftward or rightward.
Press ▲ or ▼ key to reposition the picture upward or downward.
(Please refer to the figure 7)

② **H-size & V-size function window**



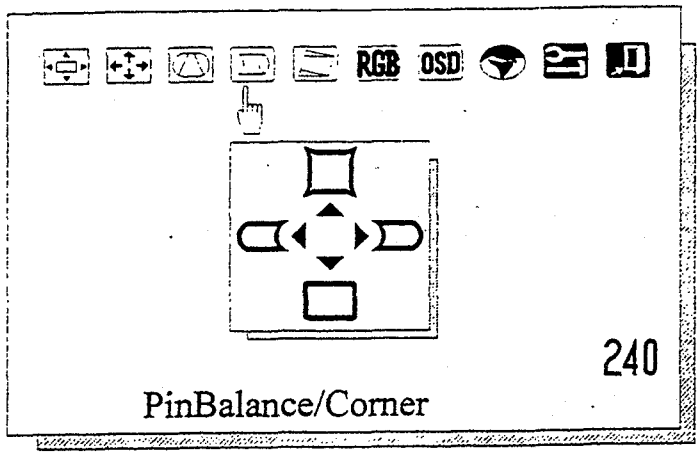
Press ◀ key to reduce the H-size and press ▶ key to enlarge the H-size.
Press ▲ to enlarge the V-size and press ▼ key to reduce the V-size.

③ **Pincushion & Trapezoid function window**



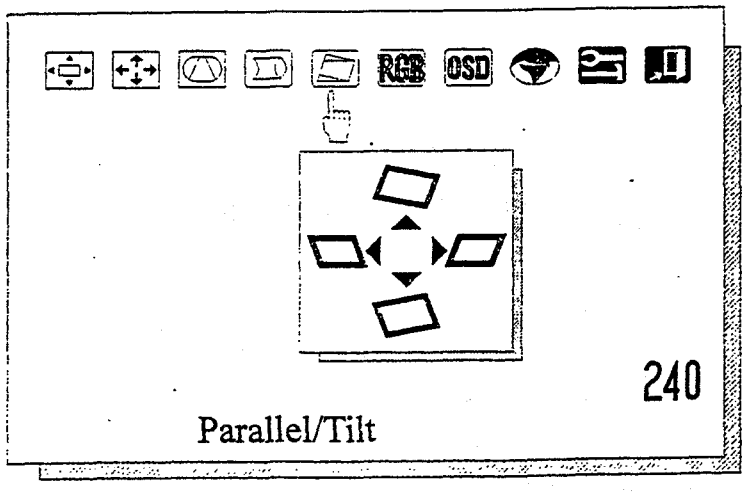
Press key ◀ and ▶ on the control panel to alter pincushion and barrel according to your personal needs.
Press key ▲ and ▼ on the control panel to alter trapezoid according to your personal needs.

④ **Pin - Balance & Corner function window**



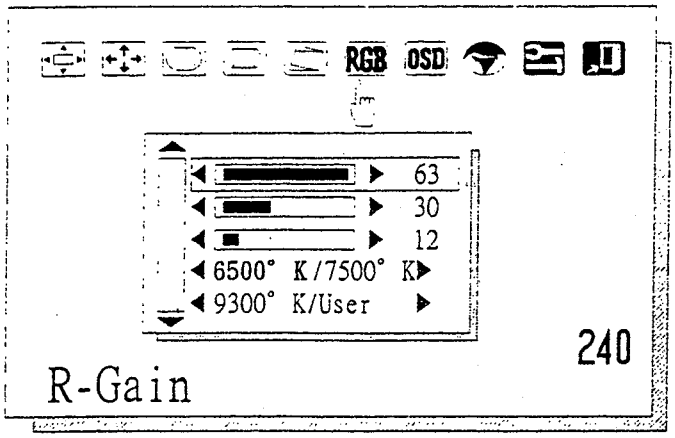
Press " ◀ " and " ▶ " to adjust pin balance .
Press" ▼ " and " ▲ " to adjust corner distortion.

⑤ **Parallelogram & Tilt function window**



Press " ◀ " and " ▶ " to adjust parallelogram .
Press " ▼ " and " ▲ " to adjust tilt.

⑥ **RGB Color Temperature function window.**



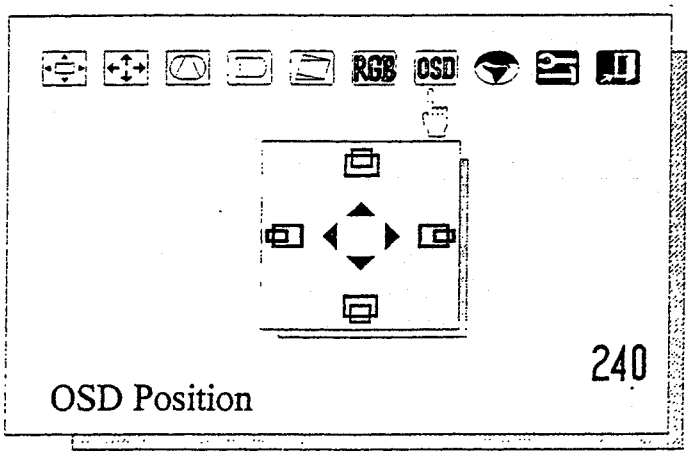
RGB Value Setting

The current setting of the color temperature is presented in purple. Press ▲ ▼ key to move the black bar up or down to your desired item. There are three factory settings available for selection: 6500^0 K , 7500^0 K, and 9300^0 K. For personal preference, you may directly adjust the RGB values separately either in the User's mode or in 6500^0 K, 7500^0 K, and 9300^0 K mode. The values will be stored in the User's mode after leaving the user's function window.

Note

If you previously set 6500^0 K, 7500^0 K, or 9300^0 K to be stored in the User's mode, then the OSD will display these three default settings instead of the User's mode as moving the black bar to select the User's mode .

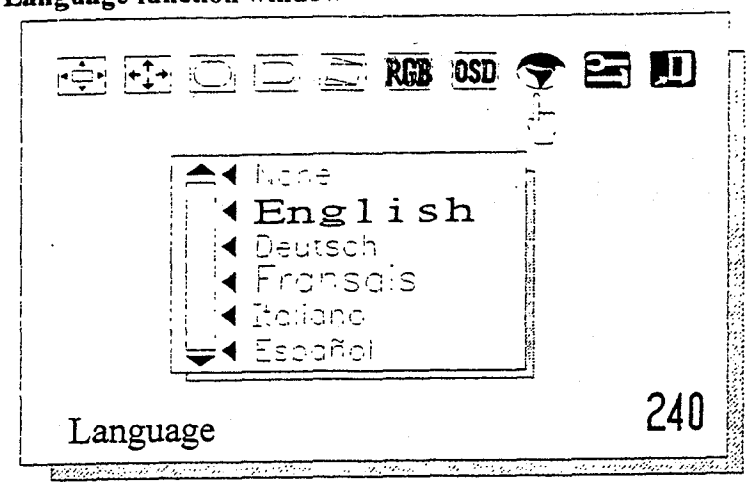
⑦ **OSD position function window.**



You may reposition OSD according to personal needs.

Press ◀ ▼ ▲ or ▶ to move OSD.

⑧ **Language function window**

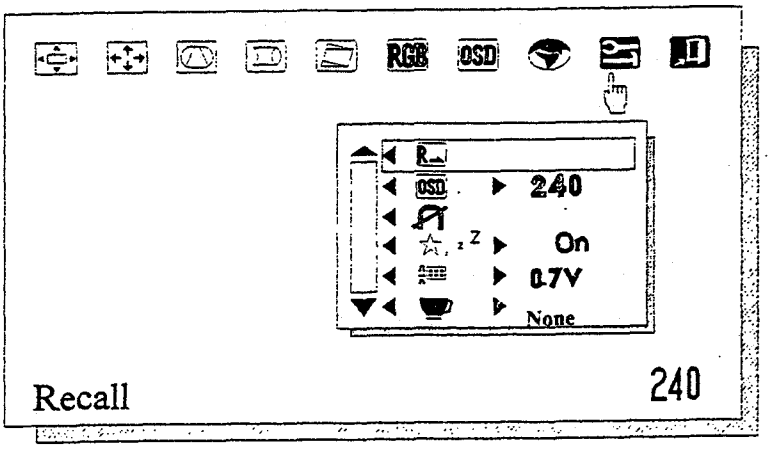


Press "▼" and "▲" to select your desired language, and then the OSD menu will be presented in the language selected.

Note

No message will be displayed if you select "None".

⑨**Tools function window.**



Recall factory setting if monitor H-V frequency is in preset mode including Phase, Size, and Pincushion/Key-stone.

Adjust OSD countdown timer whose duration ranges from 5 to 240 seconds.

Activate the degauss function of CRT.

Enable or disable power saving .

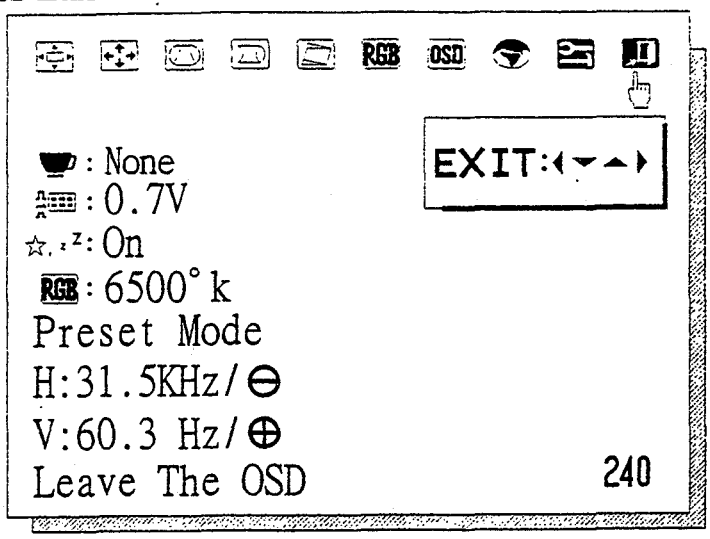
Select the video input level.

Adjust tea time whose duration ranges from 0 to 255 minutes

Note

1. The icon, a cup of coffee, will appear to remind you to take a break.
2. The duration for displaying tea time is about 20 seconds. You may also set the duration for displaying tea time according to personal needs. To terminate displaying tea time, please press any one of the keys or set the duration to None.

⑩ **Exit OSD menu function window.**



The information of current settings such as tea time, video input level, power saving , color temperature , current horizontal / vertical frequency and polarity will be displayed.

Note

If the signal cable is not connected to the PC, then the screen will display the Color Bar Pattern.

Specifaicaions

1. Mechanical Description

1-1 Dimensions

Height : 428 mm

Width : 405 mm

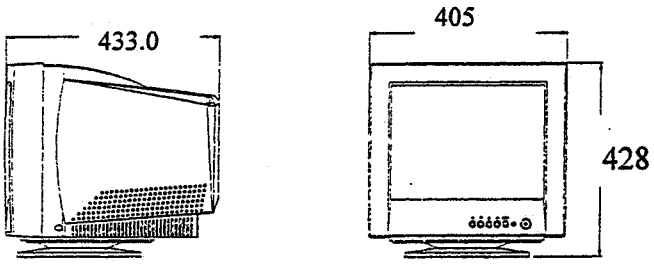
Depth : 433 mm

Weight : 16Kg (max.)

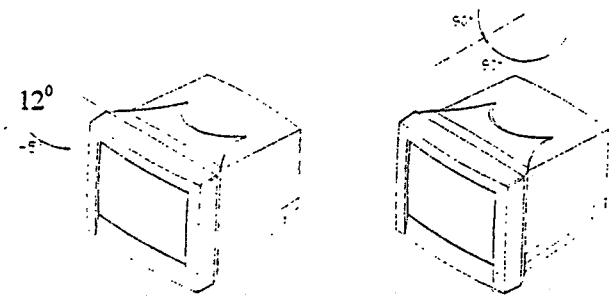
Picture Tube : 17" diagonal , 90^0 deflection

0.28mm trios dot pitch, SS-DY

1-2 Dimension Drawings



1-3 Tilt and Swivel Adjustment



2. Environment

2-1 Operating Ambient Temperature, Humidity and Altitude

Temperature : 0^0 C ~ 35^0 C

Humidity : 10% ~ 90%

Altitude : 10,000FT (max.)

2-2 Storage Ambient Temperature, Humidity and Altitude

Temperature : 10^0 C ~ 60^0 C

Humidity : 10% ~ 90%

Altitude : 30,000FT (max.)10.000m

2-3 Shipping Ambient Temperature, Humidity and Altitude

Temperature : -20^0 C ~ 60^0 C

Humidity : 10% ~ 90% (without condense)

3. Vibration and Shock : Package Condition

3-1 Vibration

Frequency: 5Hz ~ 100Hz ~ 5Hz

Acceleration: 1.2G

X-axis, Y-axis, Z-axis : 20 minutes each

3-2 Shock

45 cm high, one corner, three edges, and six sides.

4. Electronic Performance

4-1 Power Supply

Input Voltage: 100 VAC ~ 240 VAC (Universal)

Input Frequency: 50 ± 3 Hz / 60 ± 3Hz

Power: 120W under the normal condition

Inrush Current: 42A0-p (max.) at AC 240V

4-2 Sync.

Separate Sync. TTL level: horizontal sync. (positive / negative)

vertical sync. (positive / negative)

compound Sync. is compatible.

4-3 Video

Input Connector: 15-pin D-sub connector

Signal Level: analog 0.7 Vp-p

Polarity: positive

Display Color: unlimited colors

Video Pix Rate: 110 MHz (pixel)

4-4 Power Management

PMS standard complies with VESA, EPA and NUTEK.

On-state: Green indicator is lit.

Stand-by state: H-sync. is off and yellow indicator is lit.

Suspend state: V-sync. Is off (less than 15W) and yellow indicator is lit.

Off state: H/V sync. Is off (less than 8W) and Orange indicator is lit.

5 General Definition and Test Condition

Unless otherwise specified, all QA tests to verify specification must be performed under standard operating condition as follows:

5-1 Test Signals

A. Video Generators

CHROMA 2000 or equivalent

B. Timing

See Input Signal Timing

C. Video Mode

VGA text mode

5-2 Warm-up Time

Minimum 30 minutes after power switch on with specified power line voltage and signal applied.

5-3 Direction

A The CRT face should face to east for northern hemisphere usage.

B The unit for southern hemisphere usage should be tested under simulated or actual magnetic fields of southern hemisphere , and the CRT face should face to east.

5-4 Ambient Lighting Environment is 400 to 600 Lux.

5-5 Ambient Magnetic

No special ambient magnetic field exits.

(The AC leakage flux or DC flux causes transformer magnet or the like).

Measurement should be assigned in specified magnetic field and direction of CRT.

5-6 Ambient Temperature

20 ± 10^{0} C

Less than 2 degrees C fluctuations are allowed during test.

5-7 Inspect Equipment

A. Ruler

B. MINOLTA TV2130 Color Analyzer or equivalent

C. KLEIN convergence error measurement gauge CM7AG

D. Microscope 10X

6 Screen Display & Performance Specification

6-1 Image Character Area

Horizontal :306 mm + / - 5 mm

Vertical : 230 mm +/ - 5 mm

6-2 Image Positions: (Input signal: cross hatch)

Adjust the picture to the center of screen.

The image position is within the area as shown in Figure 3.

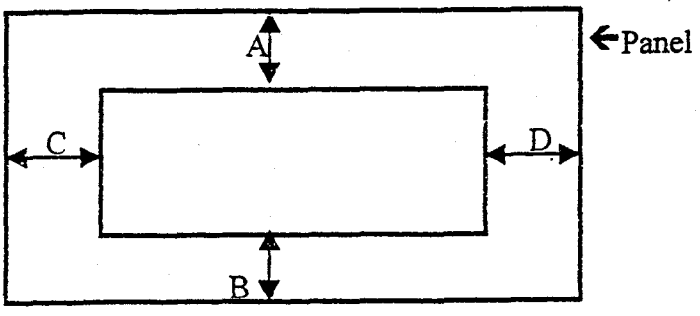


Figure 3

$|A-B| \leqq 4$ mm $|C-D| \leqq 4$ mm

(under the normal condition)

6-3 Distortion

A. Pincushion & Barrel (Refer to Figure 4)(Test pattern: Cross-Hatch)

A-1. Pincushion

Upper (a) : less than 2 mm

Lower (b) : less than 2 mm

Right (c): less than 2 mm

Left (d): less than 2 mm

A-2.Barrel

Upper (a') : less than 1 mm

Lower (b'): less than 1 mm

Right (c'): less than 1 mm

Left (d): less than 1 mm

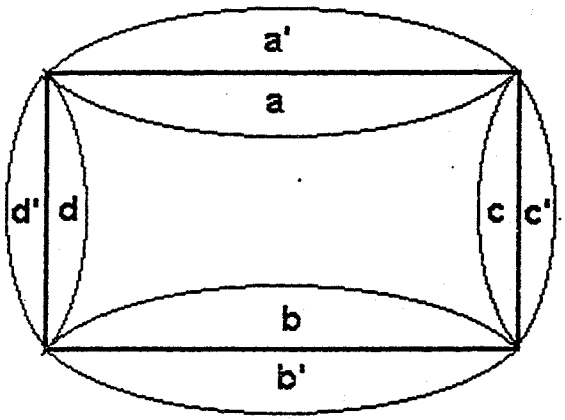
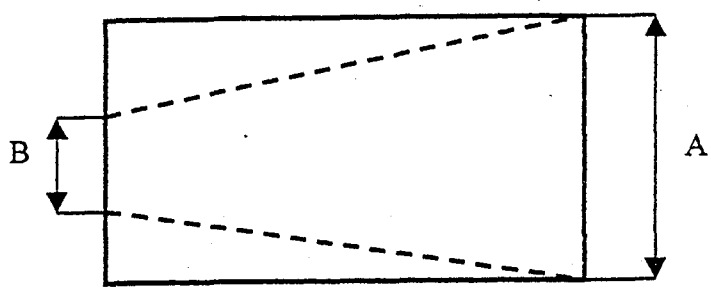


Figure 4

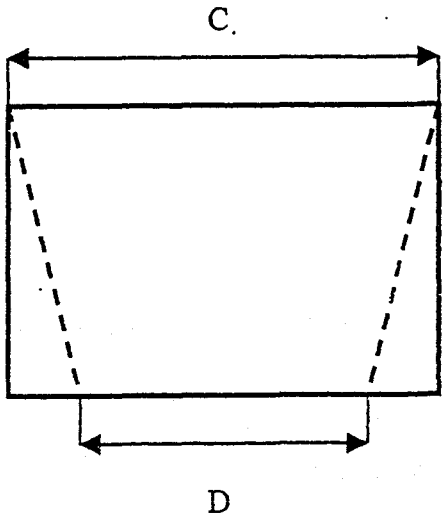
B.Rctangularity & Parallelogram Distortion (Test pattern: Cross-Hatch)

Edge of the image is within area indicated by the dotted lime as shown in Figure 5a & Figure 5b.



$$|\ A\text{-}B\ | \leqq 2.0\text{mm}$$

Figure 5a Rectangularity



$$|C\text{-}D\ | \leqq 2.0\ \text{mm}$$

Figure 5b Parallelogram

C. Linearity

Witch cross- hatch pattern , horizontal and vertical linearity should less than 5%. The brightness is set 20FL in full white pattern, then switch to cross hatch pattern.

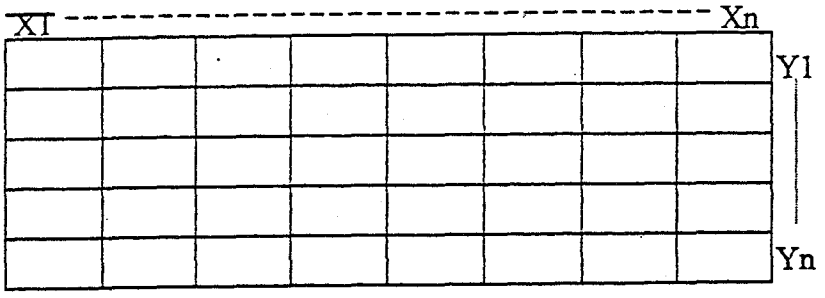


Figure 6
Horizontal Linearity

$$\left| \frac{Xmax - Xmin}{Xmax + Xmin} \right| \times 100\% \leq 5\%$$

Vertical Linearity

$$\left| \frac{Ymax - Ymin}{Ymax + Ymin} \right| \times 100\% \leq 5\%$$

Note: Maximum and minimum values should not be adjacent each other.

X max. is maximum value among X1~Xn.

X min is minimum value among X1~Xn.

Y max. is maximum value among Y1~Yn.

Y min is minimum value among Y1~Yn.

D. Rotation: (Input singal: cross hatch. Green pattern)
Horizontal center line of the image should be within the shade area as in Figure 7 .

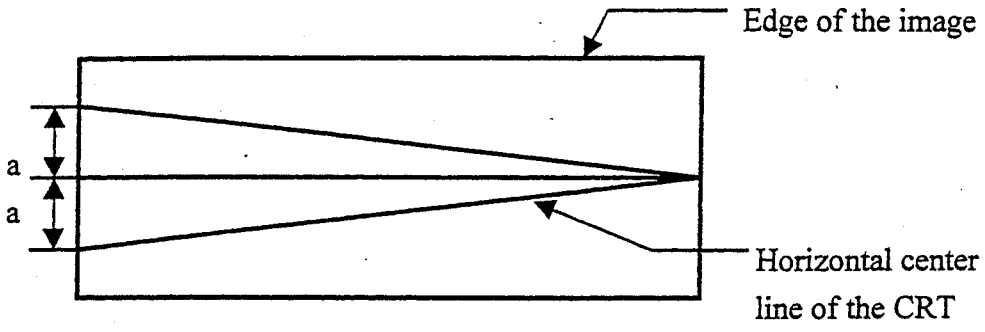
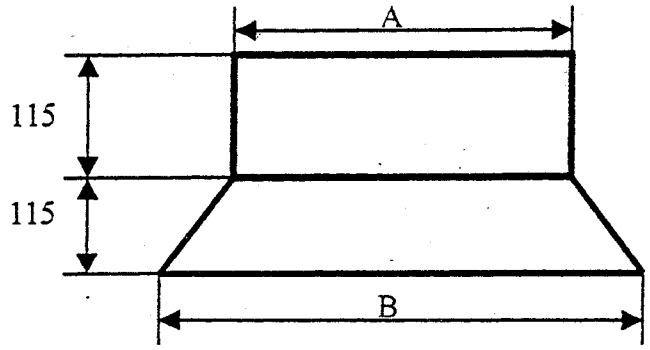


Figure 7

a.....+/- 2mm

6-4 Image Size Variation (Input signal : Full white)



$A-B \leq 3.0mm$

	image size variation form the normal image size	range of variation
by brightness	within 3 mm (horizontal and vertical)	1~Full Beam
by power supply voltage	within 3 mm (horizontal and vertical)	AC100V~120V AC220V~240V
by temperature	Within 3 mm (horizontal and vertical)	$20^0 \pm 10^0 C$

6-5 Mis -Convergence (Input signal: cross-hatch)

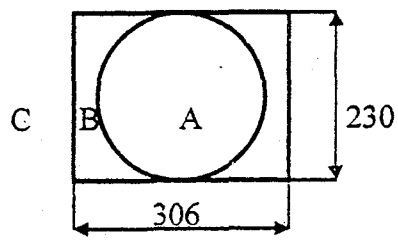
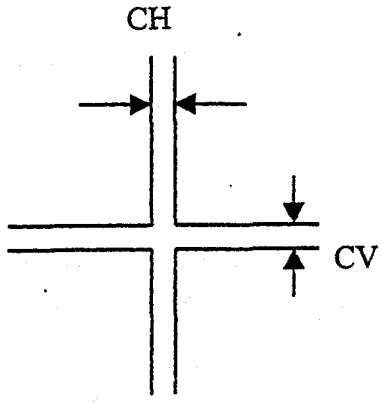


Figure 8

Center of the display area (A)<0.3mm
Peripheral display area (B)<0.40mm Cs≤0.5mm



CH: Horizontal Miscon

CV : Vertical Miscon

$$Cs=\sqrt{CH^2+Cv^2}$$

6-6 Jitter

No visible jitter is present upon viewing the screen from 0.5 meters.

6-7 Luminance Uniformity

With entire 306mm by 230mm display area illuminated with white flat field.

No area may be less than 70% of the luminance of the brightness area found on the screen.

6-8 Maximum Luminance

Greater than 25 Foot-Lamberts, with full white pattern,306mm x 230 mm display area

greater than 45 Foot -Lamberts, 70x70mm, white pattern

6-9 Chromatically

(a)Turn the Brightness control until the raster is just cut off.

Turn the Contrast Control.

The Full White Pattern $Y \geq 25FL$ $Xo=0.281 \pm 0.020$

$Yo=0.311 \pm 0.020$

(b)The Contrast Control keeps the position of item (a)

Brightness Control from Max to Min.

$Xe= Xo \pm 0.025$ $Ye= Yo \pm 0.025$

6-10 Focus

With full white pattern to set luminance at 20FL,

change full white pattern to full E pattern to check whether all "E" characters are easy to read and do not fuzzy.

6-11 Power Management

Input Sync.			State	Power Consumption	Recovery Time
H	V	Video			
O	O	Active	On State	Less than 120W	Non-applicable
X	O	Blank	Stand-bv	Less than 15W	5 Seconds
O	X		Suspend	Less than 15W	5 Seconds
X	X		OFF	Less than 8W	Same as Cold Start

6-12 DDC

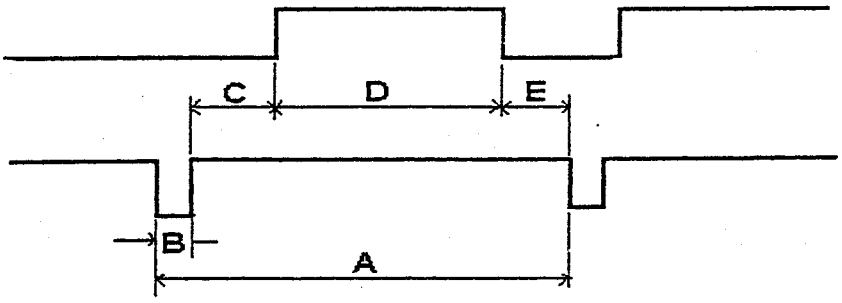
Satisfies the DDC1 and DDC2B specification.

The specifications of the D-SUB connector is shown on page 27

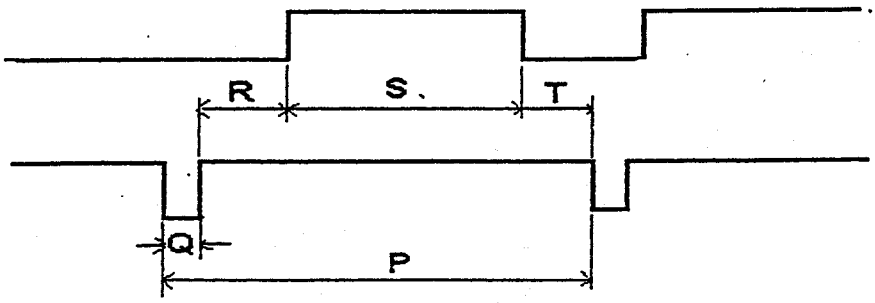
Input Signal Timing

SEPARATE SYNC.

HORIZONTAL



VERTICAL



Sync. Polarity : Positive/ Negative

Preset Timing

MODE	1	2	3
ITEM	640x350	640x400	640x480
fH (KHz)	31.469	31. 469	31. 469
A us (Line time total)	31.778	31. 778	31. 778
B us (Sync. Pulse width)	3.813	3. 813	3. 813
C us (Back porch)	1. 907	1. 907	1. 907
D us (Active)	25.422	25. 422	25. 422
E us (Front porch)	0.636	0. 636	0.636
fV (Hz)	70. 086	70. 086	59.940
P ms (Frame time total)	14.268	14. 268	15. 253
Q ms (Sync. pulse width)	0.064	0. 064	0. 064
R ms (Back porch)	1.907	1. 112	1. 049
S ms (Active)	11.122	12.711	15.762
T ms (Front porch)	1.176	0.381	0.317
	Separate Sync.	Separate Sync	Separate Sync
Horizontal Sync. Polarity	positive	Negative	Negative
Vertical Sync. Polarity	Negative	Positive	Negatove
Interlaced	No	No	No

Preset Timing

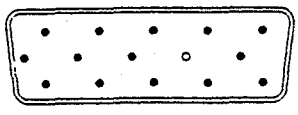
MODE ITEM	4 VESA37KHZ 640x480	5 640x480	6 VESA46.8K 800x600
fH(KHz)	37.5	43.20	46.884
A us (Line time total)	26.667	23.11	21.329
B us (Sync. Pulse width)	2.032	1.556	1.616
C us (Back porch)	3.81	2.22	3.232
D us (Active)	20.317	17.778	16.158
E us (Front porch)	0.508	1.556	0.323
fV(Hz)	75	85.008	75.04
P ms (Frame time total)	13.333	11.764	13.331
Q ms (Sync. pulse width)	0.08	0.069	0.064
R ms (Back porch)	0.427	0.578	0.448
S ms (Active)	12.8	11.093	12.797
T ms (Front porch)	0.026	0.024	0.022
	Separate Sync.	Separate Sync.	Separate Sync.
Horizontal Sync. Polarity	Negative	Negative	Negative
Vertical Sync. Polarity	Negative	Positive	Positive
Interlaced	No	No	No

Preset Timing

MODE	7	8	9	10
ITEM	1024x768	1024x768	1280 x 1024	1024x768
fH(KHz)	56.476	60.023	63.75	68.677
A us (Line time total)	17.707	16.660	15.686	14.561
B us (Sync. Pulse width)	1.813	1.219	1.489	1.016
C us (Back porch)	1.920	2.235	1.997	2.201
D us (Active)	13.653	13.003	11.62	10.836
E us (Front porch)	0.321	0.203	0.58	0.508
fV(Hz)	70.069	75.029	59.747	84.997
P ms (Frame time total)	14.272	13.328	16.737	11.765
Q ms (Sync. pulse width)	0.106	0.050	0.047	0.044
R ms (Back porch)	0.513	0.466	0.596	0.524
S ms (Active)	13.599	12.795	16.737	11.765
T ms (Front porch)	0.054	0.017	0.032	0.014
	Separate Sync.	Separate Sync.	Separate Sync.	Separate Sync.
Horizontal Sync. Polarity	Negative	Positive	Positive	Negative
Vertical Sync. Polarity	Negative	Positive	Negative	Positive
Interlaced	No	No	No	No

Signal Connector

Pin 1 Pin 5



Pin 11 Pin 15

Signal Connector

Pin	Mode
1	R
2	G
3	B
4	Ground
5	D-Sub Test
6	Video Return
7	Video Return
8	Video Return
9	NO PIN
10	Digital Ground
11	D-Sub Test
12	SDA
13	H-Sync
14	V-Sync
15	SCL

Adjustment Guide

Instrument

1. Chrome-2000 Signal Generator
2. Assistant Ruler or Alignment Mask
3. Brightness Meter
4. Adjustment Tube and " - " Type Screw Driver
5. High-Voltage Probe
6. Digital Voltage Meter(DVM)
7. Degaussing Coil
8. Color Analyzer (MINOLTA TV-2031)
9. D.C Power Supply

Presetting Adjustment

1. Set Brightens and Contrast to the maximum position.
2. Set the main board VRs(VR501,VR502,VR901) to the mechanical center.
3. Timing
   Basically ,the timing is set to mode 1 cross-hatch pattern for adjustment .If you will use the other mode ,refer to the Input Signal Timing.
4. Turn on the power switch .Adjust the VR901 to enable that the 52.5VDC output voltage is in the range of 52.5±0.2VDC.Then check the other five output voltages to see whether they meet the following specifications.
   (a) 14.5 VDC ± 0.2 VDC (b) 75 VDC ± 0.5 VDC
   (c) 7.2 VDC ± 0.3 VDC.
5. High Voltage and Brightness Adjustment
   (a) Set the Chrome 2000 pattern generator to M3.
   (b) Set Brightness and Contrast to the minimum.
   (c) Adjust VR502 to get that the anode voltage is 25 ± 0.2KV.
   (d) Adjust FBT screen VR to make G2 Voltage =630V±5V.
   (e) Set G1 Voltage to make the raster just visible.

6. Phase Adjustment

(a)Press the Menu Button to enable the OSD window.

(b)Press the Menu Key to enable the H-phase function.

(c)Adjust" ◀ "or" ▶ "Key to set video on the middle of screen .

(d)Press the menu key to enable the v-center function .

(e)Adjust " ▲ "or" ▼ "key to set video on the middle of screen.

7. Focus Adjustment

(a)Set the Chrome 2000 pattern generator to 68.6KHz.

(b)Adjust the FBT Focus VR(H.V.) to make that the corners and center look very clear.

8. High Voltage Protection Circuit

(a)Set the chrome 2000 pattern generator to 31.5KHz

(b)Set the Brightness and Contrast to the minimum position.

(c)Adjust VR502 to let anode voltage be over 28.5 ±1KV.
Check that the high voltage protection circuit can operate when the high voltage is in the range of 27.5 KV~ 29.5KV.

(d)Turn the power off. Re-adjust VR502 to the original position.

(e)Turn the power on. Re-adjust VR502 to enable that anode voltage is in the range of 25KV±0.2 KV.

Final adjustment

1.Enter the Service function window

(a) First, press the "MENU" key.

(b) Re-press the MENU Key to choose the function "Tools" .

(c)Press the key " ∇ " to drag the green cursor down to the icon "Tea-time" and hold on the key " ∇ " for about 15 seconds.

(d) Window will change to the service manual pattern.

2. Check the high voltage protection function.

(a) Set the Chrome 2000 pattern generator to 31.5KHz.

(b) Adjust VR502 until the anode voltage reaches 28.5KV ± 1KV. Confirm that the high voltage protection circuit can operate to enable that the anode is under 0.1KV. Turn the power off.

(c) Re-adjust VR502 to the original position. Then turn the power on.

(d) Re-adjust VR502 to enable that the anode voltage is in the range of 25KV ± 0.2KV.

3. Raster White Balance Adjustment

Warm up the unit about 30 minutes. Degauss the CRT screen, using the external degaussing coil.

(a)Set the Chroma-2000 pattern generator to M1.(without video pattern)

(b)Set the Brightness to the maximum and the Contrast to the minimum by OSD control.

(c)Adjust the Screen VR to make G2 =630±5V then adjust Sub Brightness (OSD Service Menu G1 ICON) to make background brightness =0.5FL ±0.1FL

(d) Enter the OSD function, and adjust the raster color temperature ICON to the following default values.

x = 0.281 ±0.02

y = 0.311 ±0.02

(e)Re-adjust Sub Brightness to get the Brightness(Y) 0.6~1.0 F. L.

Check x and y values. x = 0.281 ± 0.02 y = 0.311 ± 0.02

4 . Video White Balance Adjustment

(a) Set the Contrast to the maximum and the Brightness to the maximum.

(b) Set the Chrome 2000 pattern generator to mode 1 pattern 3 70x70mm^2 window white pattern.

(c) Adjust Video gain of red to get Y= 11 F. L.±1 F. L.(window red pattern)

(d) Adjust Video gain of blue to get X=0.281±0.015 adjust Video gain of green to y=0.311± 0.015. 50 < y < 60F.L.

(e) Set the Chroma 2000 pattern generator to model pattern 2 full white pattern.

(f) Enter the OSD pattern : select "ABL Adj " ICON and adjust using " ◀ "or " ▶ "key to make Y=26FL~28FL.

(g) check the white color temperature and color tracking to get the following values:

x=0.281+/- 0.020 y=0.311+/- 0.020 Y=5~MAX. F. L.

5. Size Range: adjust the picture size of each mode to get
H=306 +/- 5 mm and V=230 +/- 5 mm

6. Horizontal and Vertical Linearity

Use cross-hatch pattern and set timing from M1 to M10. Check that the horizontal and vertical linearity must meet the following specification:

Vertical Linearity $\leq$5%

Horizontal Linearity $\leq$5%

Horizontal Linearity

$$\left| \frac{Xmax-Xmin}{Xmax+Xmin} \right| \times 100\%$$

Vertical Linearity

$$\left| \frac{Ymax-Ymin}{Ymax+Ymin} \right| \times 100\%$$

7. Focus Adjustment

(a) Change timing to M10 mode Pattern 63 (full white pattern)

(b) Set the brightness to let the raster just disappears. Then set the contrast to get the luminance 20FL.

(c) change pattern to pattern 59 (character pattern)

(d) Turn the FBT Focus knob to let that the characters at the four corners of the screen look very clear.

8. Convergence Adjustment

(a) Switch timing to M10 pattern 51 (cross-hatch pattern)

(b)Adjust the H-Size and V-Size to get the display size 312mm x 232mm.

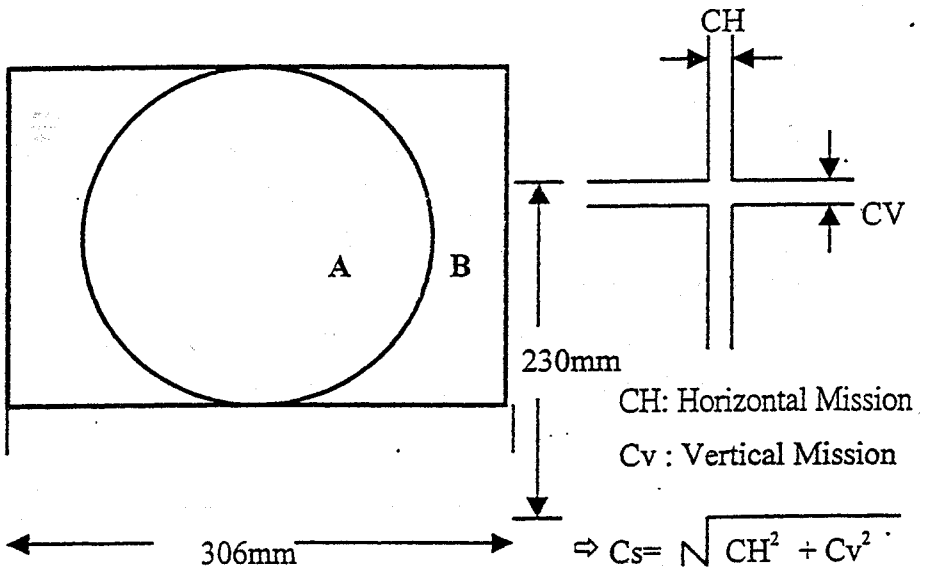
(c) Set the brightness to let the raster just disappears.

Switch pattern from pattern 51 (cross-hatch pattern) to pattern 63 (full white pattern). Then turn the Contrast to get the luminance 20F.L.

(d) Switch pattern to pattern 51 (cross-hatch pattern).Adjust CRT magnetic ring in compliance with the following convergence specifications

A:0.30mm

B:0.40mm Cs ≤0.5mm



CH: Horizontal Mission

Cv : Vertical Mission

⇨ $Cs = \sqrt{CH^2 + Cv^2}$

9. High Voltage Regulation

(e) Change timing to M10 Black and White pattern.

(f) Set the brightness and Contrast to the maximum luminance position.

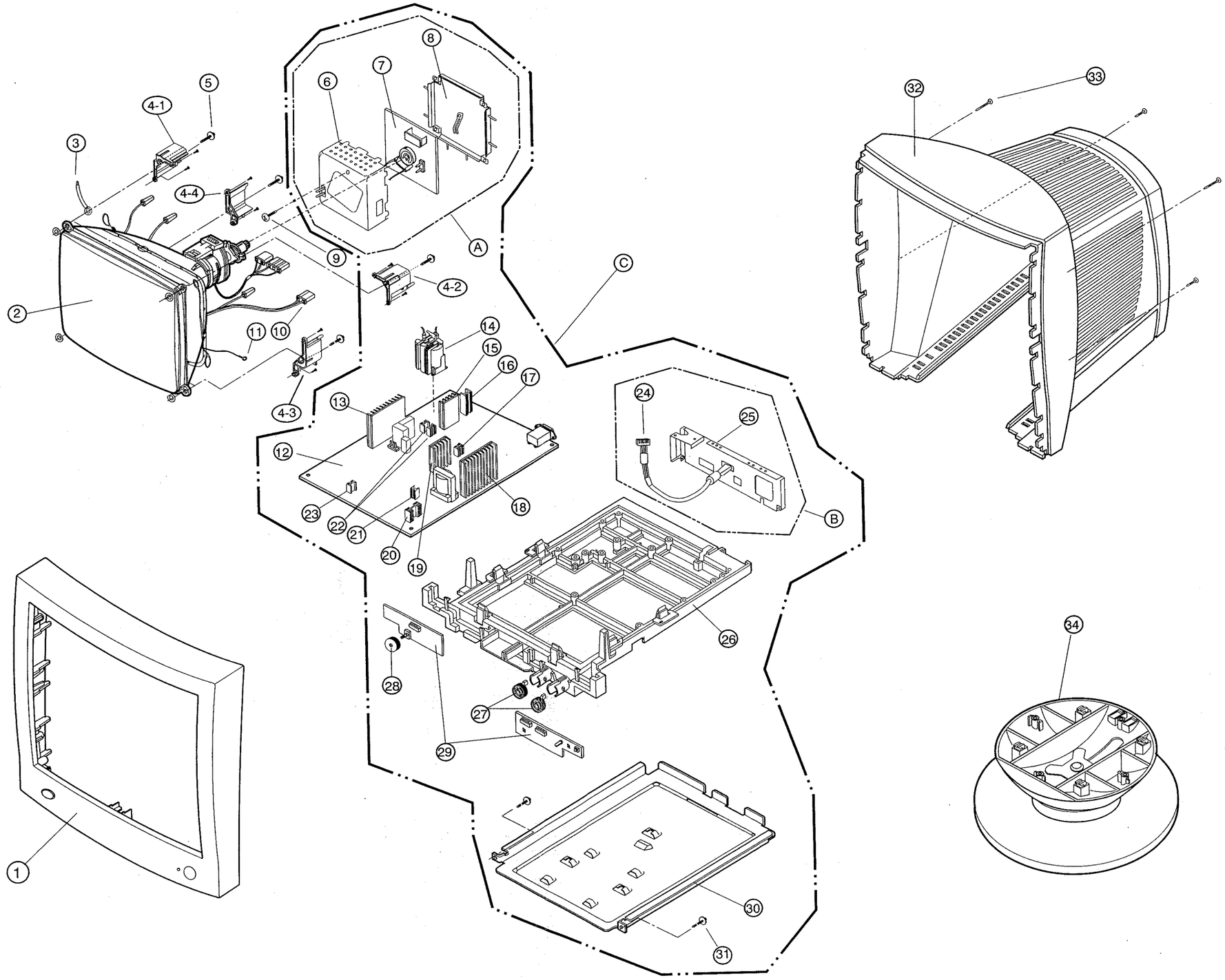
(c) Check that the horizontal and vertical size variation must be less that 3 mm.

(d) Change pattern to full white pattern.

(e) Set the brightness and contrast form the maximum luminance position to the minimum.

(g) Check if the horizontal and vertical size variation is less than 3 mm

EXPLODED VIEW



EXPLODED VIEW PARTS LIST

Ref. No.	Part No.	Description	Q'ty	Material
1	300-D19A	CABINET ASS'Y	1	LGC ABS 345 UL94-5V
2	112-882A	M41KVZ680X72(Q)(NORTHERN HEMISPHERE)	1	
	2423GC0081A	M41LFQ803X01R(EQUATORIAL HEMISPHERE)		
	2423GC0B81R	M41LFQ803X01S (SOUTHERN HEMISPHERE)		
	2423GC0B81A	M41LFQ803X01N (FOR JAPAN)		
3	341-832B	HOLDER,FIX FOR DEGASSING COIL	4	
4-1	340-715A	BRACKET, SIDE TOP-LEFT	1	LGC ABS 303S UL 94-V0
4-2	340-716A	BRACKET, SIDE TOP-RIGHT	1	LGC ABS 303S UL 94-V0
4-3	340-718A	BRACKET, SIDE BOTTOM-RIGHT	1	LGC ABS 303S UL 94-V0
4-4	340-717A	BRACKET, SIDE BOTTOM-LEFT	1	LGC ABS 303S UL 94-V0
5	339-002D	SCREW, PHP+5×30 BP+GW18	4	
6	340-772B	BRACKET, VIDEO FRONT	1	AL (t=1.0)
7	6871TVH007E	PCB ASS'Y,VIDEO	1	
8	4815TKV001D	METAL ASS'Y,VIDEO REAR SHIELD	1	SBHG1-A (t=1.0)
9	339-008B	SCREW MP+3×8FOR VIDEO BRACKET	1	
10	150-B16A	DEGAUSSING COIL	1	
11	170-128D	CRT EARTH	1	
12	6871TMT003E	PCB ASS'Y,MAIN FOR USA/CAN	1	
	6871TMT003C	PCB ASS'Y,MAIN FOR EUROPE/AUS/JAPAN		
	6871TMT003D	PCB ASS'Y,MAIN FOR MEXICO		
	6871TMT003H	PCB ASS'Y,MAIN FOR PANAMA		
13	407-T99C	PLATE, HEAT SINK FOR Q708,D705	1	AL (t=2.0)
14	154-245A	FBT,Y265274	1	
15	407-T98B	PLATE, HEAT SINK FOR Q712	1	AL
16	407-T68A	PLATE, HEAT SINK FOR IC502	1	AL
17	407-T20B	PLATE, HEAT SINK FOR Q511	1	AL (t=2.0)
18	407-T99B	PLATE, HEAT SINK FOR IC901	1	AL
19	407-T98B	PLATE, HEAT SINK FOR IC601	1	AL
20	407-S29D	PLATE, HEAT SINK FOR IC904	1	AL
21	407-T68D	PLATE, HEAT SINK FOR D916	1	AL
22	407-T68D	PLATE, HEAT SINK FOR Q725,Q726	2	AL
23	407-T68B	PLATE, HEAT SINK FOR IC905	1	AL
24	387-803H	CONNECTOR ASS'Y,15P D-SUB		
25	4810TKK009A	BRACKET, REAR	1	
26	340-713A	BRACKET, MAIN	1	LGC ABS 303S UL94-V0
27	440-957A	KNOB, BRIGHT & CONTRAST	2	LGC ABS 303S UL94-V0
28	440-958A	KNOB, MICOM CONTROL	1	LGC ABS 303S UL94-V0
29	6871TST003E	PCB ASS'Y, CONTROL	1	
30	340-714A	BRACKET, BOTTOM SHELD	1	SBHG1-A (t=1.0)
31	332-102F	SCREW, PTP+4×20	2	

EXPLODED VIEW PARTS LIST

Ref. No.	Part No.	Description	Q'ty	Material
32	303-K25B	BACK COVER	1	LGC ABS HF345 UL94-5V
33	332-102G	SCREW, PTP+4×30	4	
34	231-047A	TILT SWIVEL ASS'Y	1	LGC ABS HF350 UL94-HB
A	6871TVT005E	CHASSIS ASS'Y, VIDEO FOR USA/CAN	1	
	6871TVT005C	CHASSIS ASS'Y, VIDEO FOR EUROPE/AUS/JAPAN		
	6871TVT005D	CHASSIS ASS'Y, VIDEO FOR MEXICO		
	6871TVT005H	CHASSIS ASS'Y, VIDEO FOR PANAMA		
B	309-516C	CHASSIS ASS'Y, REAR D-SUB	1	
C	3313T17005E	CHASSIS ASS'Y, TOTAL FOR USA/CAN	1	
	3313T17005C	CHASSIS ASS'Y, TOTAL FOR EUROPE		
	3313T17005D	CHASSIS ASS'Y, TOTAL MEXICO		
	3313T17005H	CHASSIS ASS'Y, TOTAL PANAMA		
	3313T17005K	CHASSIS ASS'Y, TOTAL AUS		
	3313T17005J	CHASSIS ASS'Y, TOTAL JAPAN		

10. PnP DDC1→DDC2B

(a)Start the test with a test floppy.

(b)Insert the floppy into "A" drive.

(c)Key in "P TE770"

(d)Press "N" Key to start the test. Press "R" Key to end the test.

(e)The test will be initialized in the following sequence:

1.DDC1 communication test

2.DDC2B communication test

(f)When the communication test terminates, the following message will

be shown on the right of the screen.

[ITEMS]

DDC1 Data check O.K.

DDC2B data check O.K.

Circuit Guide

1. DC Power Supply

EMI Filter Circuit

This circuit uses L (FL9001~FL902) and C (C902~C904) filter circuit to protect the power supply from noise during switching because that will interfere the voltage source via the power cord.

2. Power Start Circuit

The start circuit is composed of Q903, Q904, R915, R917, R916, R918, ZD902 and C923 to get the fixed current to start up IC902.

3. Feedback and PWM Circuit

The feedback functions by use of the voltage sensed by R924.The voltage will input to IC902 pin 3 via R923 and will output to IC902 pin 6 after it is compared with IC902

pin 2(whose voltage is got after passing the divided circuit composed by R938,R939, and VR901 and the amplification and compensation circuit composed of R934,R927, C919,and C920)to Push Q901 to do switching for PWM function so that the output voltage of T901 is very stable.

4. LED Indication, OFF mode (Saving)and Sync Circuit

4.1 Sync

The Sync ±signal enter IC902 pin 4 through C924, D911,D912, R931and C918 to synchronize T901 with H-Sync

4.2 LED Indicator and Off mode

In the ON mode, the 7V voltage will illuminate the Green LED (Q958 is ON)

In the Stand-by or Suspend mode, Q508 off, LED901 will became yellow.

In the OFF mode, Q907 off, Q956 off, LED901 will became orange.

5. Output Rectification Circuit

T901 stores the energy by switching Q901 and releases the energy through D951, D953,D954 and D955.

(D951,C952), (D953,C955) , (D954,C956), and (D955,C958) constitute 52V, 14.5V, and 7V rectification / filter circuit separately. R964 connects to IC951 input via 14.5V and a stable voltage 5V is got from IC951 output to provide the CPU circuit.

IC952 gets a stable output voltage 12V provides Time- base IC (IC501)

6. Power Saving Circuit

If no H-Sync and V-Sync input, IC602 PIN 27 will send a low level signal to turn off Q757 & Q956, then inhibit 7V o/p, IC602 pin23 will send a low level signal to IC952 Pin4 to inhibit IC952 12V o/p. So IC501 will shut down and make deflection & video CRT stops.

7. DC/ DC Converter Circuit

The monitor uses a Boost DC-DC converter to raise the voltage from 52V to 58~184V(depending on the horizontal frequency and load). IC501 contain a building PWM IC, whose output pin 6 switch on/ off Q951.When Q951 is ON, L901 will store energy and when Q951 is OFF ,L901 will release energy from 52V and via ,C963 to the FBT (horizontal output). The FBT pin 11 provides a reference voltage as a feedback signal through R5A2, R5A3, and VR502 , C550 to IC501 pin 5 enable that the high voltage becomes stable 25Kv during Fh=31~70KHZ. R955 is current sense resistor to detect L901 current.

8. Digital Control Circuit

This circuit contain IC602 its circumferential parts , IC602 pin 25 and are I^2C bus input signal and parallel with IC501 directly .

The H-Sync signal inputs from IC602 pin 42 and pin36 will output a fixed polarity.

The V-Sync signal inputs from IC601 pin 1 and 37 will output a V-Sync signal working as the time base of monitor.

CS Control(CS2~CS3)

the following table shows the control status: (IC602 pin 10~13)

	CS	CS0	CS2	CS3
31k~33k	1	1	1	0
33k~40k	1	1	1	0
40k~45k	1	1	0	0
45k~50k	1	0	0	0
50k~55k	1	1	0	0
55k~62k	1	1	0	1
62k~70k	1	0	0	1

Note : "0" means C528 is "ON", and "1" means L504 is "ON"

9.Horizontal (Time Base) Circuit

The horizontal signal inputs from IC501 pin 15 and pin 8 will output a fixed duty ON/OFF signal (the signal synchronizes with pin 29 and the duty will be modulated by H-Frequency) after the procession done by IC501. H-phase is determined by the voltage of IC501 pin 26. The free-running frequency is determined by R517, R518, & C512. If C501 pin 30 is low and this IC will stop working.

10.Horizontal Output Circuit

10.1 The H-Drive signal (IC501 pin 8) passes through C519, Q506, T501, R545 and Q507 to switch On/Off Q507 and triggers the FBT, C525, C526, D516 and D157 to output the high voltage (about 23.5KV).

10.2. The linearity coil (L503) will be paralleled with L504 when use in higher frequency (control by IC501) to make linearity better.

11.Vertical Circuit

The V-Sync signal inputs to IC501 pin 12 and 13 then , send to Ic401 pin 1 and 2 and the signal will output from IC401 pin 6 after the procession done by IC401. Vertical free run depend on C516 & R520.

The blank signal take from IC401 pin 8 via R408 connect to Q518 to Amplifier and via C547 to CRT G1. IC602 pin 9 will output a low signal to pull down base voltage of Q517 to avoid suddenly high current in CRT screen.

The IC401 is a current amplifier with output pin 6, which can make the input of, pins 1 & 2 differential amplification and will output from pin 6 to trigger V-DY.

12.Over Beam Current, Brightness, ABL and spot killer Circuit

Over Beam Current :

The OBC. Circuit is composed of Q604, R635, Q605, R611, R612 & C607, R639, at once beam current raise too high and sensor by IC602 pin 40, the video will be blank by IC602 to finish over current protection.

Brightness :

IC602 pin 35 O/P a PWM signal to Q206 (on video board) . The Q206 emitter voltage Will pull down the cathode voltage to control the brightness.

ABL :

After change CRT if the brightness of full white pattern is out of spec, you can get in "ABLADJAST" ICON of OSD, then press "◁ " or "▷" key to get proper brightness the control signal is come from IC602 pin 34.

Spot Killer:

IC602 pin 9 will O/P a low signal to pull high G1 voltage and disappear video picture when switch off main power or in abnormal operation.

13.H-Size and Distortion Correction Circuit

This circuit contain Q601, Q515 & Q514 , IC602 pin 20 O/P a PWM signal and get a DC level in C555 to control O/P level in pin 14 of IC502, if the DC level is higher, the size will be shrink. Pin 13 is compensated H-Size in mode- change pincushion is control by pin 11 of IC501 the parabola signal be amplified by IC502 and O/P from pin 14 to control the pincushion distortion. The other parameters of distortion (comer, trapezium , parallelogram, pin -balance) also control by this signal via I^2C bus from IC602.

14. Auto Degaussing

When power on at once IC602 pin 14 O/P a high level signal to turn on Q955, RL901 will on, degaussing coil will active to finish degaussing function. The manual degaussing can also be finished via OSD function.

15.Raster Center Circuit

This circuit contain Q508, Q509, VR501 etc. adjust VR501 you can move the raster horizontally to the picture center.

16.Dynamic Focus Circuit

The dynamic parabola signal come from pin 32 of IC501 and amplifier by Q501A. Then

direct connect to focus pin of FBT and enter CRT.

17.Hi- Voltage Protection Circuit

If Hi-Voltage is raise to higher without limitation during abnormal condition will injure human health in this case.

The protection circuit : ZD501 and R511~R514 will active to shutdown high voltage.

Video Circuit Guide

1. TDA4885 is the pre-amplifier of I^2C BUS Control. Setting the increasing percentage to the contrast max. will obtain the value: 4.5VP-P - approximately 6 times of TDA 4885. The B^+ Range of IC is 7.6V~8.8V. Take 8V and use the regulation IC7808 to generate the following:

   A : Pin 6,8,10 worked as the three-gun input pin are generally set to 0.7VP-P.

   B : The max. value of Pin 25, 30, 20 worked as the three-gun output pin is 4.5VP-P.

   C : Pin 21,22, 32 supply the DC BIAS Control with the DC voltage 4V~6V.

   D : Pin 17 supply the Beam Current Limiting with the start point within 4.5V~2V to control the Video gain of Full White Balance.

   E : The voltage of Pin 21,26,31 determining the Black Lever of Output is assigned to adjust the external brightness.

   F : Pin 5 Clamp Pulse is generated and supplied by the mother board – TDA4854.

   G : Pin 2,3,4 are assigned as OSD Mix Pin.

   H : Pin 15 is the SDA I^2C BUS Serial data input.

   I : Pin 16 is the SCL I^2C BUS Serial clock input.

2. Partial Output Amplifiers are of the traditional construction – case code + push pull.

   $$\text{O / P rate gain} = \frac{RE}{RL} = \frac{1.5\ K\Omega}{100\Omega} \fallingdotseq 15 \text{ times}$$

   TDA 4885 IC O/P =4.5 VPP (max.) .The range , 4.5x 15= 67.5, meets the requirement of current Video O/P.

   $$\text{OUTPUT current} = \frac{67VPP \times 0.8}{RL} \fallingdotseq 46.6mA$$

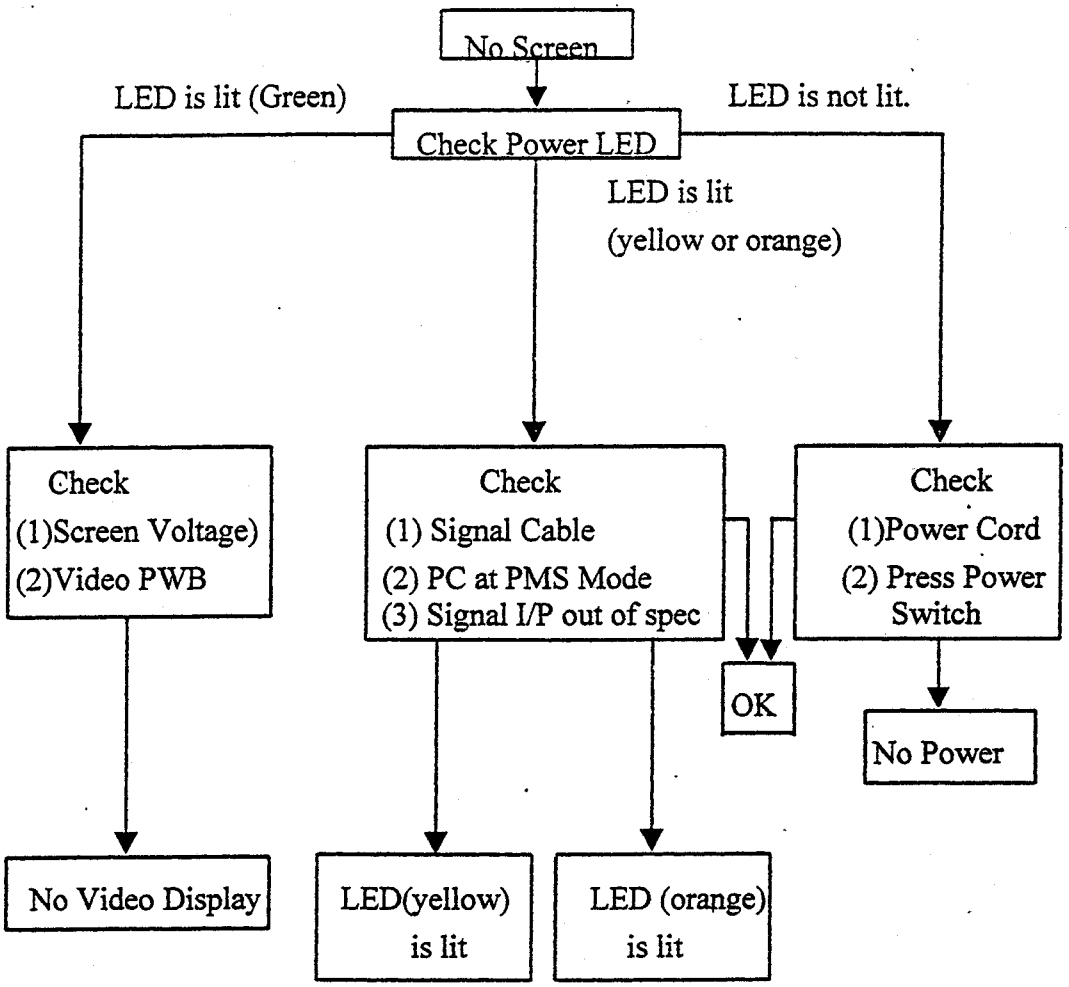
   Q212, Q213, Q214 , the Common Base, are assigned to increase the voltage, and larger VCBO voltage-resistance is required. Since $75 \div 0.8 \fallingdotseq 94V$ (0.8 is the upper limit of voltage) , and the VCBO of 2SC4934 is B^+ is 75V, the VCBO of 2SC4934 - 120V is consequently acceptable.

   R212, C213, R213, C214, R214, and C215 are used for the general high frequency peaking.

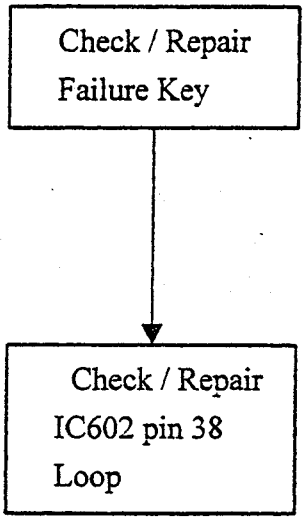
3. IC202 MC141545 records the OSD data onto the RAM. Press the MENU key ,then the OSD Window will be displayed for detailed adjustment. To start up, Pin9 and Pin4 require B^+ , Pin5 requires positive horizontal input signal, and Pin10 requires negative vertical input signal. The components connected by Pin2~5 are the Phase Locked-Loop. The component value cannot be mis-assigned otherwise the OSD Window cannot be held and the sharp edge of the OSD Window may occur.

Troubleshooting

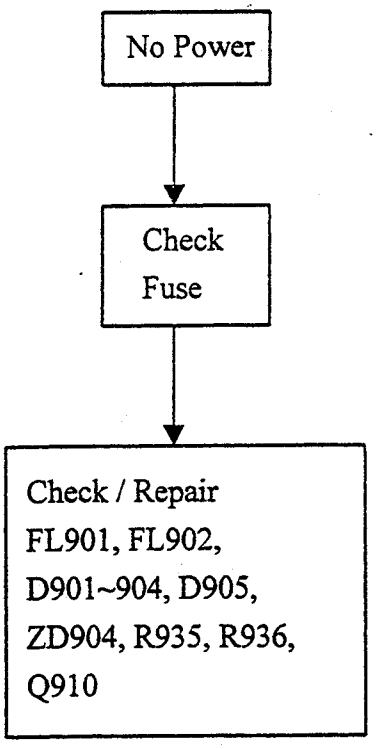
1.No Screen



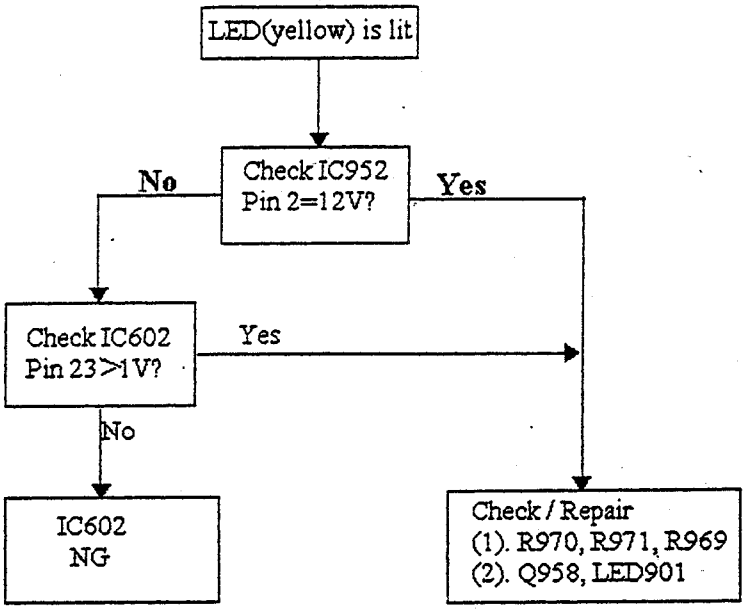
2. Exit Function/Adjustment Key Failure



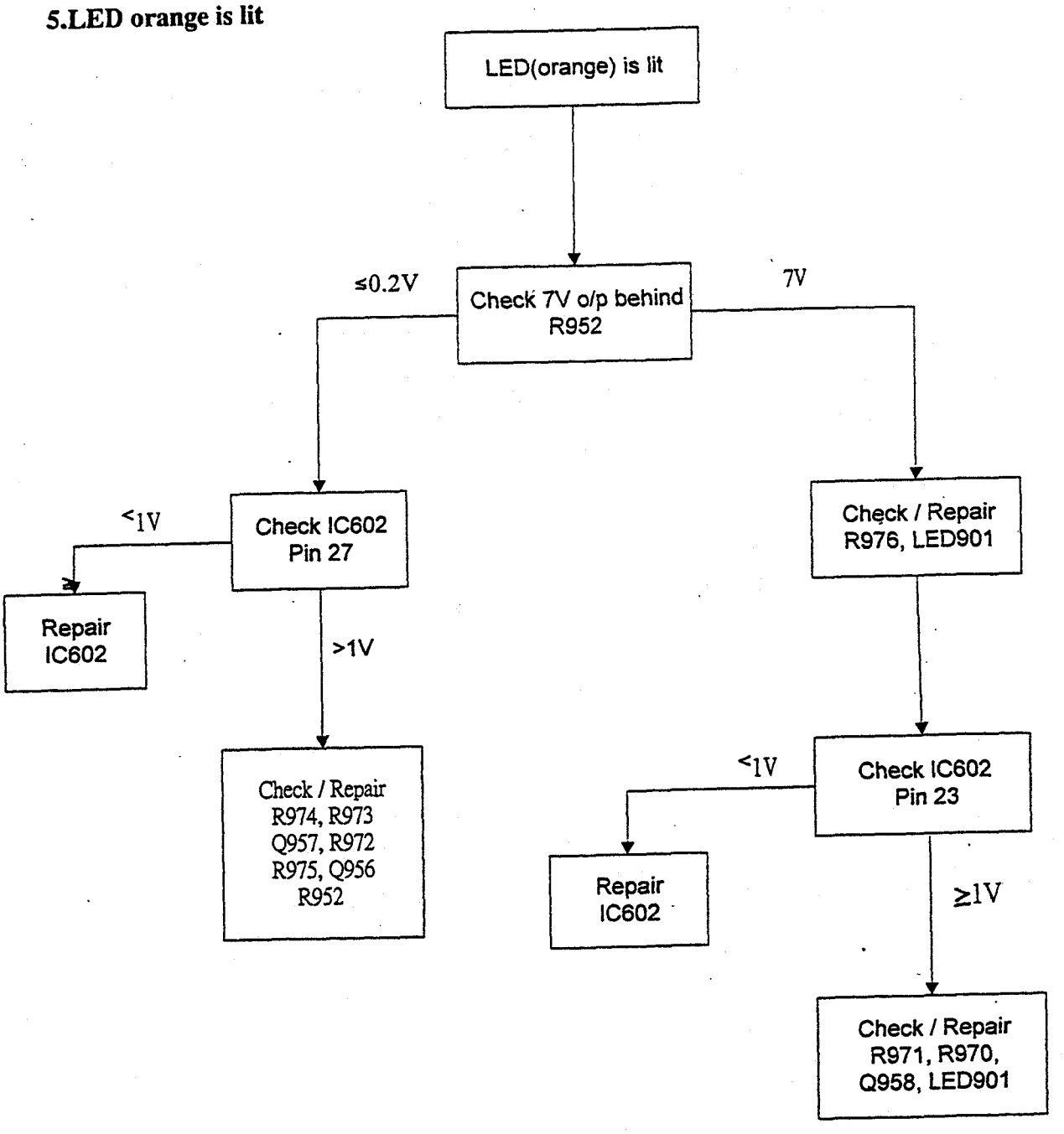
3.No Power


No Power
Check
Fuse
Check / Repair
FL901, FL902,
D901~904, D905,
ZD904, R935, R936,
Q910

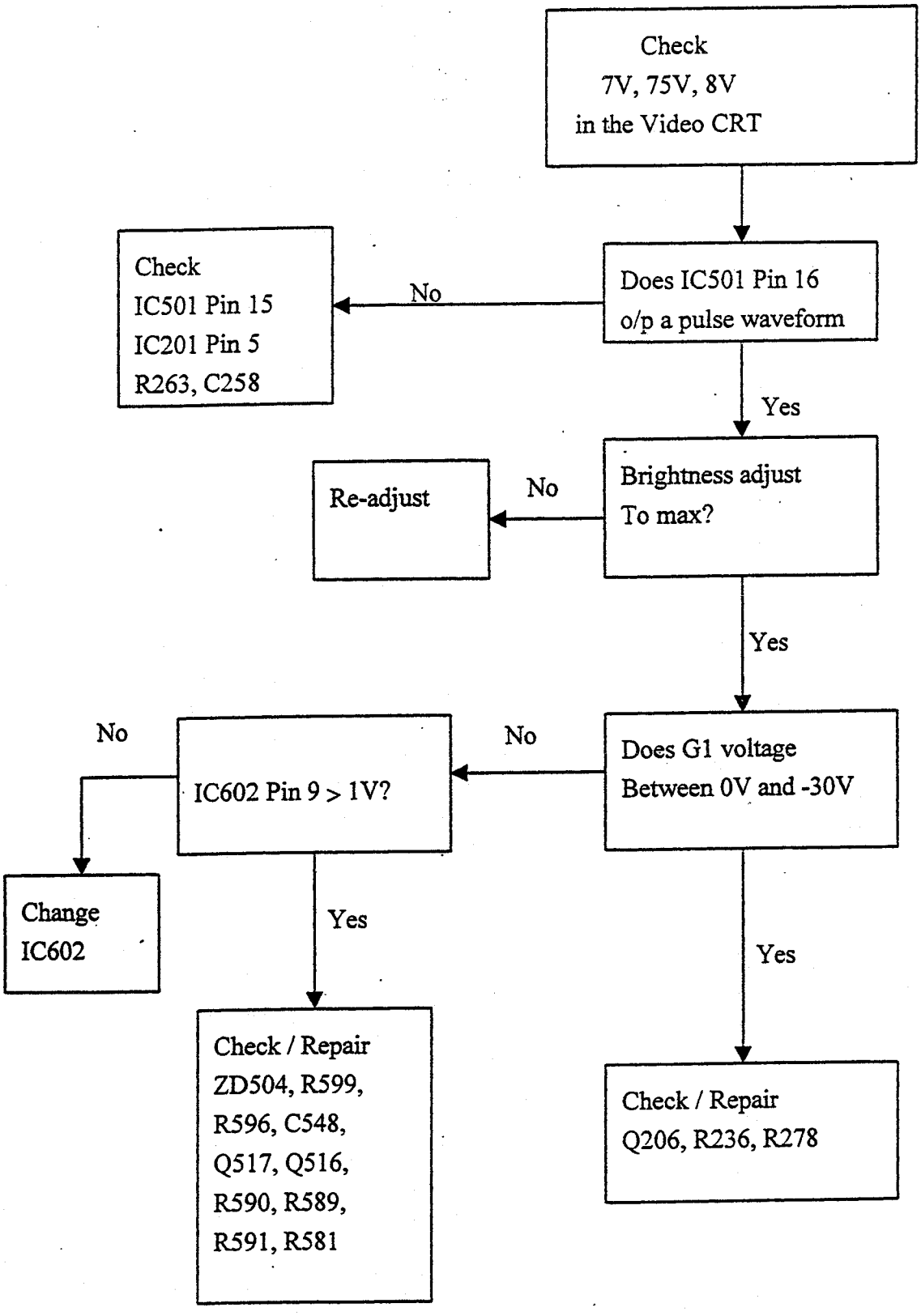
4.LED (yellow) is lit



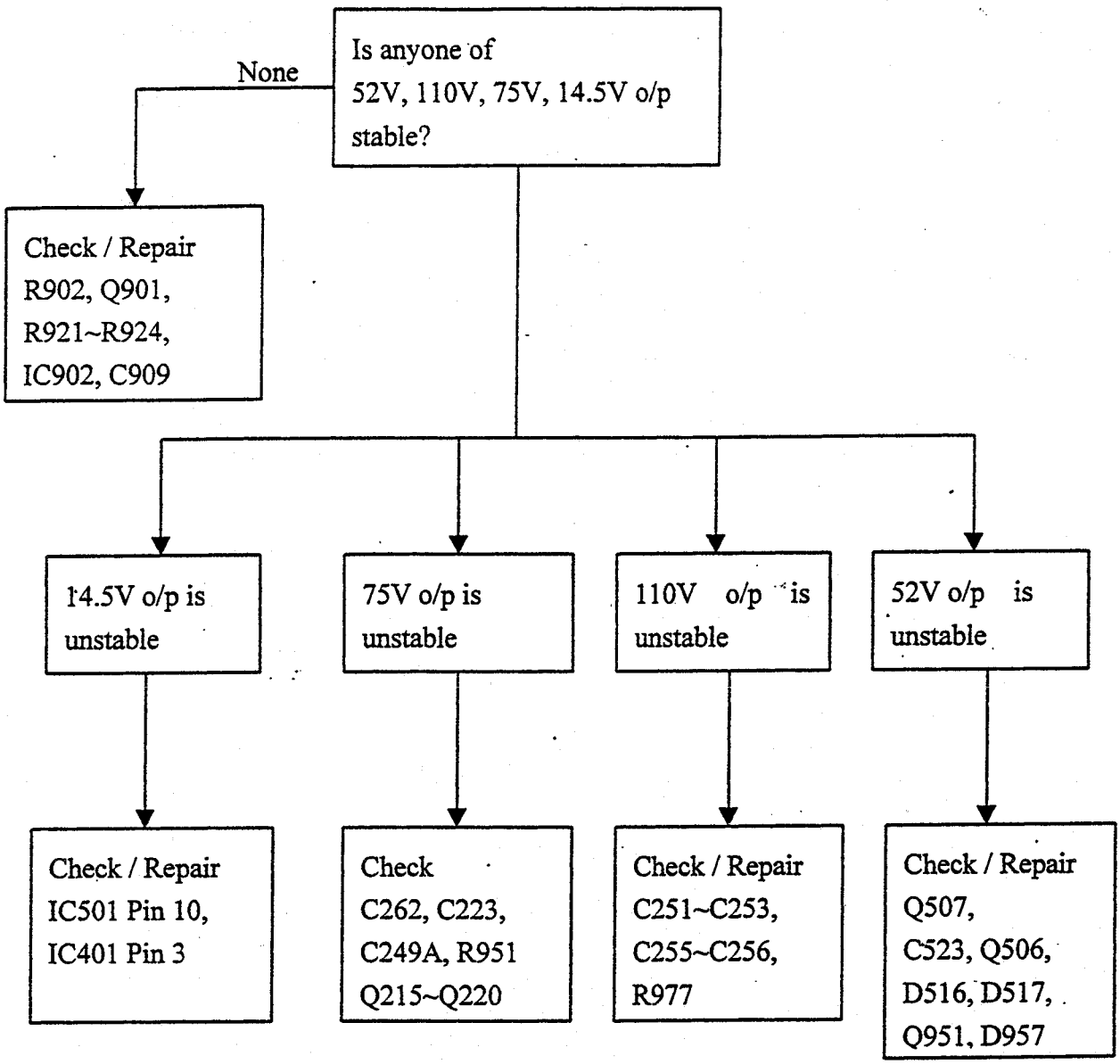
5.LED orange is lit



6. NO Video Display



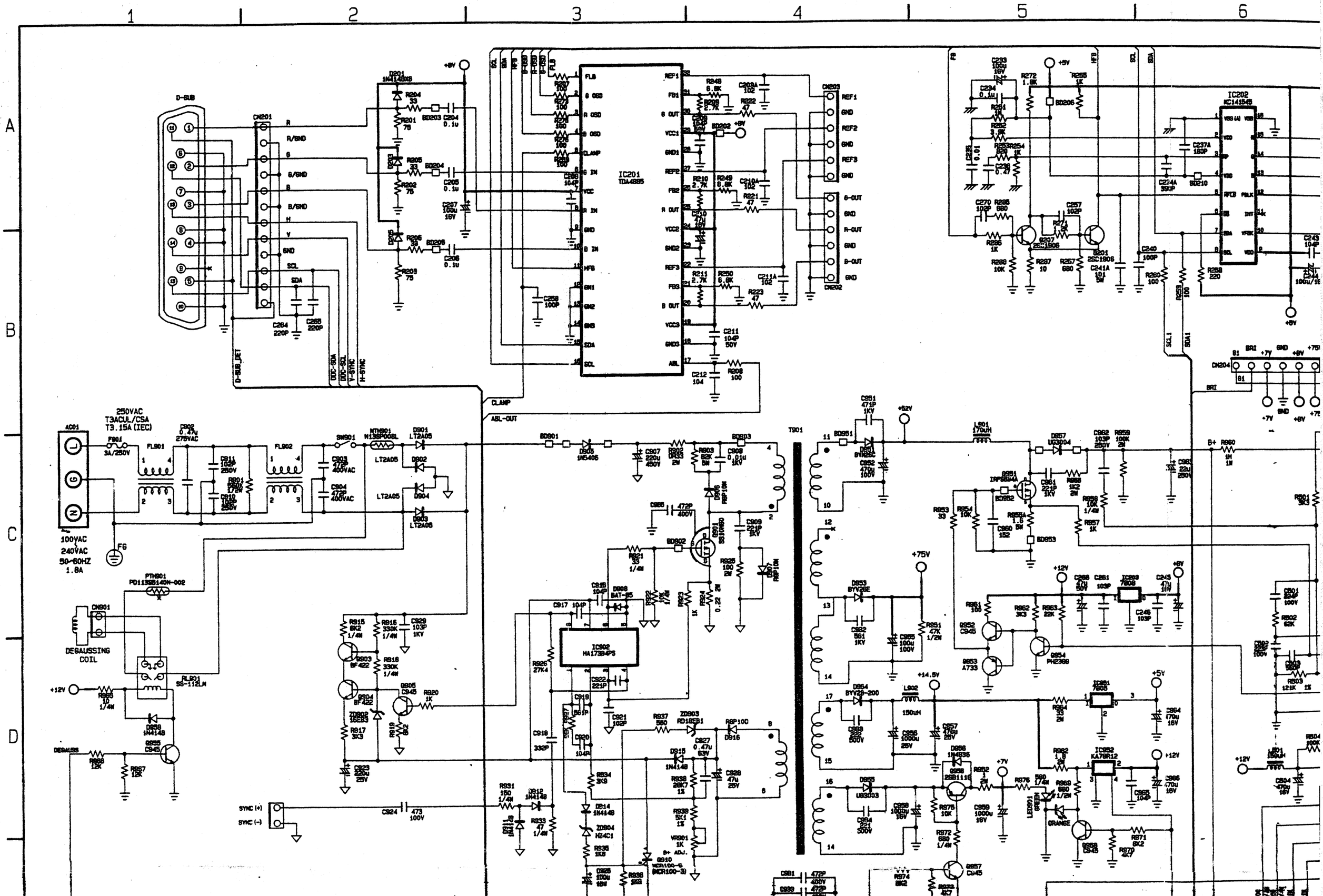
7. LED yellow blinks



COLOR MONITOR (TE770) SPARE PARTS LIST

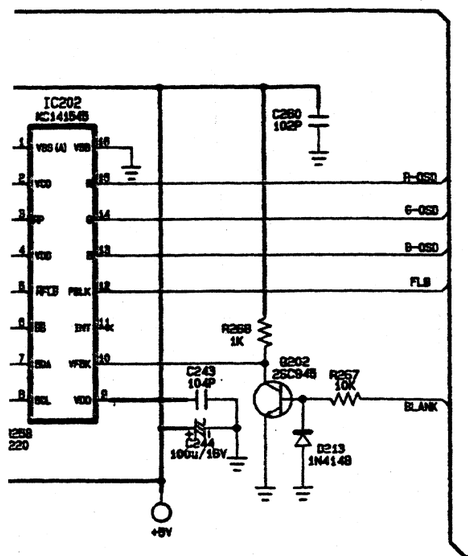
DATE : AUG.26.1999

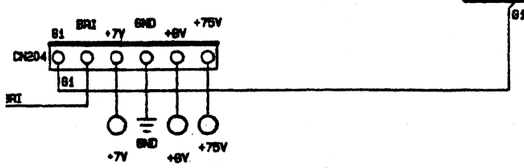
Part No	Part Description	Location	Part Name	U/P(USD	Q'TY	REMARK
7021802052611	TE770(N.B.ID:T)		CARTON	3.158		
7021812004711	TE772		POLYFOAM(L)	1.269		
7021812004819	TE772		POLYFOAM(R)	1.269		
7021824001521	TE767		PE BAG	0.033		
7021824004024	TE1764		PE BAG	0.033		
7372223003508	K15031HA183BP-1		AC POWER CORD (KING CORD)	2.500		
7021750051912	TE770(TECO/ENGLISH)		USER'S MANUAL	0.308		
7373001219509	D15H12/1305,BLK		SIGNAL CONNECTOR(HH,GOLF	2.417		
7021301033918	TE772-1(PC+ABS,MC-8519)		FRONT PANEL	12.113		
7021404014318	TE572		LENS-P	0.108		
7021453006614	TE772-3(ABS,FUGGY BLUE)		BUTTON-F	0.123		
7021453006517	TE772-3(ABS,FUGGY BLUE)		BUTTON-P	0.093		
7021311020211	TE772(PC+ABS,MC-8510)		BACK COVER	17.363		
7021401007019	TE572(PC WHITE)		SWIVEL	1.283		
7021401007116	TE572(PC WHITE)		BASE	1.413		
7021614014019	TE-772		CUSHION	0.083		
7TE770BMG118			CRT PWB ASSY	10.417		
7TE770BMF120			MAIN PWB ASSY	92.417		
7333021703804	M41LNC102XX102(D)		CRT(TECO)	125.000		
2TX000240T048	BF422(TPE2)	Q203	TRANSISTOR(TOSHIBA)	0.075		
2LC0KA3R3KD0	K3R3K,D(CHILISIN)	L201	COIL FILTER	0.053		
73400601028U4	RF1/2PG470HJ,U	R405	RES. FUSIBLE	0.020		
2RNSPC820KFT0	RN1/6PC820KF,T	R581	RES. METAL FILM	0.011		
2RDHPY150KJT	RD1/2PTY150KJ,T	R589	RES. CARBON	0.008		
2RS2PB0H33JJ7	RS2PB0R33HJ,J(SS)	R902	RES. METAL OXIDE	0.028		
2RS2PB0H22JJ5	RS2PB0R22HJ,J(SS)	R924	RES. METAL OXIDE	0.031		
73400603003U4	RF1PG1HJ,T	R960	RES. FUSIBLE	0.036		
7339020906530	R85DC3100DQ00J	C516	CAP. MM(ARCO)	0.070		
2TF0306600711	IRF630A	Q510	TRANSISTOR FET(SAMSUNG)	0.435		
2AC0205200248	TDA4885	IC201	IC (32P)(PHILIPS)	3.108		
2AA1501600206	MC141545PS/LSC4518P2	IC202	IC (16P)(MOTOROLA)	2.745		
2AA1602500997	KA7808	IC203	IC (3P)(SAMSUNG)	0.309		
2AA0205600245	TDA4854	IC501	IC (32P)(PHILIPS)	4.648		
2AM0703500321	24LC04B/P	IC601	IC (8P)(MICROCHIP)	0.792		
2AP0305400208	LPC528207B/TEI9905	IC602	IC (42P)(MOTOROLA)	2.973		
2AC0100500025	HA17384PS	IC902	IC (8P)(HITACHI)	0.515		
2AA1607000712	KA78R12	IC952	IC (4P)(SAMSUNG)	0.699		
7352040002706	KSM0652AB5	SW601	SW TACT(HDK)	0.592		
7352031004917	SS-160-7(16.0)/P.C.B-B	SW901	SW POWER(RONG FENG)	0.567		
7353013501501	2153.15(3.15A/250V/SEMKO)	F901	FUSE SLO-BLO(LITTELFUSE)	0.175		
7337000014401	6.0MHZ/HC-49U	X601	CRYSTAL(QFT)	0.458		
7334021701204	CF1182	T502	FBT(LINE CHANG)	13.750		
2TF0306200089	2SK2645-01MR	Q901	TRANSISTOR FET(FUJI)	1.083		
2TF0303800999	IRFS630	Q951	TRANSISTOR FET(SAMSUNG)	0.429		
2TX0506600242	BU2520AX	Q507	TRANSISTOR(PHILIPS)	1.515		
2AA1306500248	TDA4866	IC401	IC (9P)(PHILIPS)	1.364		
2TX0003500208	MPSA44	Q505A	TRANSISTOR(MOTOROLA)	0.236		

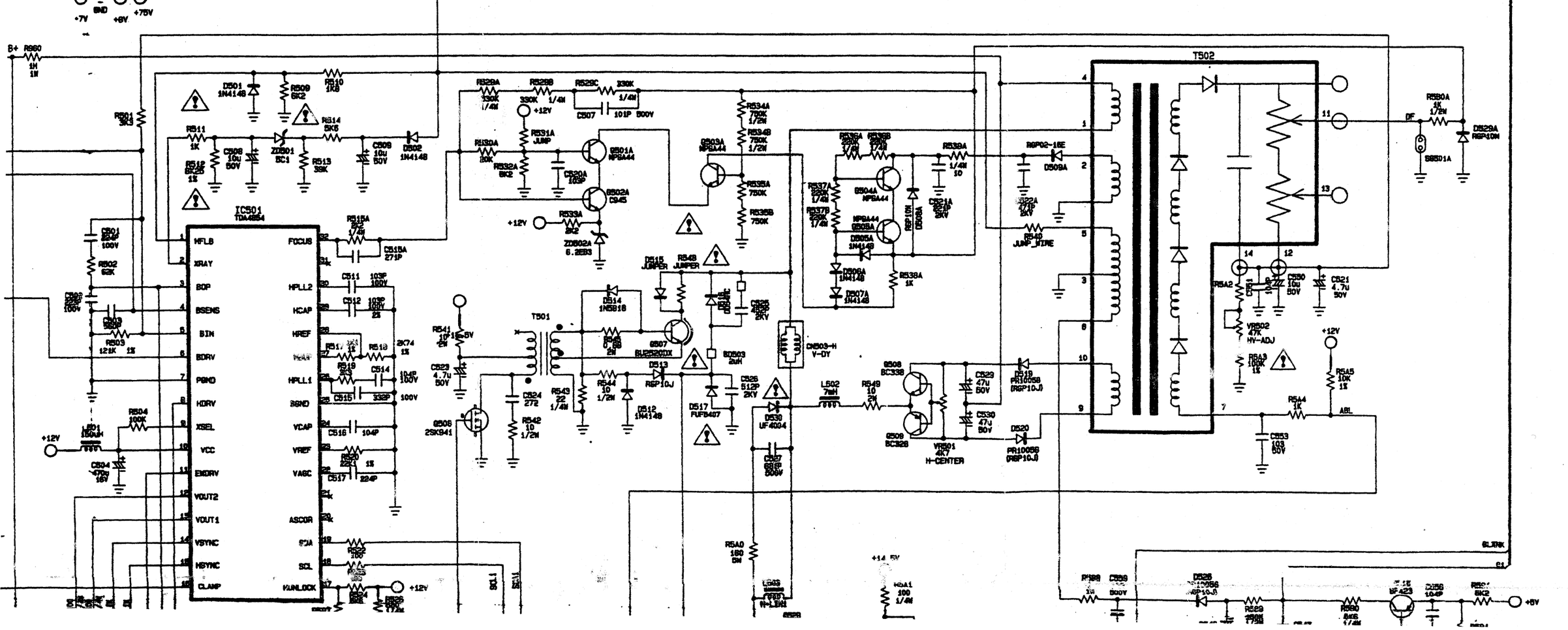

1
2
3
4
5
6
A
B
C
D
D-SUB
CN201
R
R/GND
G
G/GND
B
B/GND
H
V
GND
SCL
SDA
D-SUB_DET
DDC-SDA
DDC-SCL
V-SYNC
H-SYNC
+8V
D201
1N4148X6
R204
33
BD203
C204
0.1u
R201
75
R205
33
BD204
C205
0.1u
R202
75
R206
33
BD205
C206
0.1u
R203
75
C207
100u
16V
FLB
G OSD
R OSD
B OSD
CLAMP
G IN
VCC
R IN
GND
B IN
HFB
GN1
GN2
GN3
SDA
SCL
IC201
TDA4885
R207
100
R277
100
R278
100
R279
100
C208
104P
C258
100P
REF1
FB1
B OUT
VCC1
GND1
REF2
FB2
R OUT
VCC2
GND2
REF3
FB3
G OUT
VCC3
GND3
ABL
R248
6.8K
R208
2.7K
C209A
102
R222
47
BD202
C209B
102
C210A
102
R249
6.8K
R210
2.7K
R221
47
C210B
47U
16V
C211A
102
R250
6.8K
R211
2.7K
R223
47
C211
104P
50V
R208
100
C212
104
CN203
REF1
GND
REF2
GND
REF3
GND
G-OUT
GND
R-OUT
GND
B-OUT
GND
CN202
CLAMP
ABL-OUT
C264
220P
C265
220P
C233
100u
16V
R272
1.8K
R265
1K
C234
0.1u
R254
1K
R252
3.3K
C235
0.01
R253
1K
C236
0.47
BD206
IC202
NC141545
C237A
180P
C224A
390P
BD210
C270
102P
R285
680
R286
1K
R288
10K
C257
102P
R274
1.2K
Q207
2SC1906
Q201
2SC1906
R287
10
R257
680
C241A
101
5W
C240
100P
R260
100
R259
220
R223
100
C243
104P
C244
100u/16
SCL1
SDA1
+8V
CN204
B1
BRI
+7V
GND
+8V
+75V
AC01
250VAC
T3ACUL/CSA
T3.15A(IEC)
100VAC
240VAC
50-60HZ
1.8A
FB01
3A/250V
FLS01
FLS02
C902
0.47u
275VAC
C911
102P
250V
R901
680K
1/2W
C910
102P
250V
C903
472P
400VAC
C904
472P
400VAC
SWS01
NTH901
N13SP008L
LT2A05
D901
D902
D904
D903
F6
FTH901
PD113B5140N-002
CN901
DEGAUSSING
COIL
RLY01
SS-112LM
+12V
R905
10
1/4W
D958
1N4148
Q955
C945
DEGAUSS
R906
12K
R907
12K
BD901
D905
1N5406
C907
220u
450V
R903
82K
5W
C908
0.01u
1KV
T901
C905
472P
400V
D906
FR151M
C909
224P
1KV
Q901
2SK1010
BD902
R921
33
1/4W
R925
100
2W
D907
FR151M
C915
104P
D908
BAT-85
C917
104P
R922
47K
1/4W
R923
1K
R924
0.22
2W
IC902
HA17384PS
R926
27K4
C922
221P
C919
561P
C921
102P
C918
332P
C920
104P
R915
8K2
1/4W
R916
330K
1/4W
C929
103P
1KV
Q903
2SF422
RB16
330K
1/4W
Q904
2SF422
Q905
C945
R920
1K
R917
3K3
R919
6K2
C923
220u
25V
SYNC (+)
SYNC (-)
C924
473
100V
R931
150
1/4W
ZD912
1N4148
R933
47
1/4W
R934
3K9
ZD903
RD18EB1
RBP100
D916
D915
1N4148
C927
0.47u
63V
R938
28K7
1%
C928
47u
25V
R939
8K1
1%
D914
1N4148
ZD904
HZ4C1
R935
1K8
VR901
1K
B+ ADJ.
D910
MCR100-6
(MCR100-8)
C925
100u
16V
R936
1K8
C951
471P
1KV
+52V
BD951
D951
BYW80E
C952
470u
100V
L801
170uH
D957
U03004
C962
103P
250V
R959
100K
2W
B+
R960
1M
1W
R961
100
R962
3K3
R963
22K
Q952
C945
Q953
A733
Q954
PH2369
IC951
7805
C268
47U
50V
C261
103P
C245
47u
16V
C246
103P
C502
1000u
100V
R502
82K
R503
12K
1%
C503
1000u
100V
C504
104P
R504
100K
1%
LED1
150uH
+12V
D953
BYV26E
C962
561
1KV
C955
100u
100V
R951
47K
1/2W
+14.5V
D954
BYV26-200
C959
561
500V
L802
150uH
C956
1000u
25V
C957
470u
25V
D956
1N4936
Q956
2SB1116
R952
2W
+7V
R975
560
1/4W
R976
10K
R972
680
1/4W
C954
221
500V
U03003
D955
C958
1000u
16V
C959
1000u
16V
IC952
KA78R12
R962
1.8
1W
R969
680
1/2W
LED01
GREEN
ORANGE
Q958
C945
R971
8K2
R970
4K7
C964
470u
16V
C965
104P
C966
470u
16V
+5V
R954
3K3
2W
IC951
7805
C954
470u
16V
Q957
C945
R974
8K2
R973
4K7

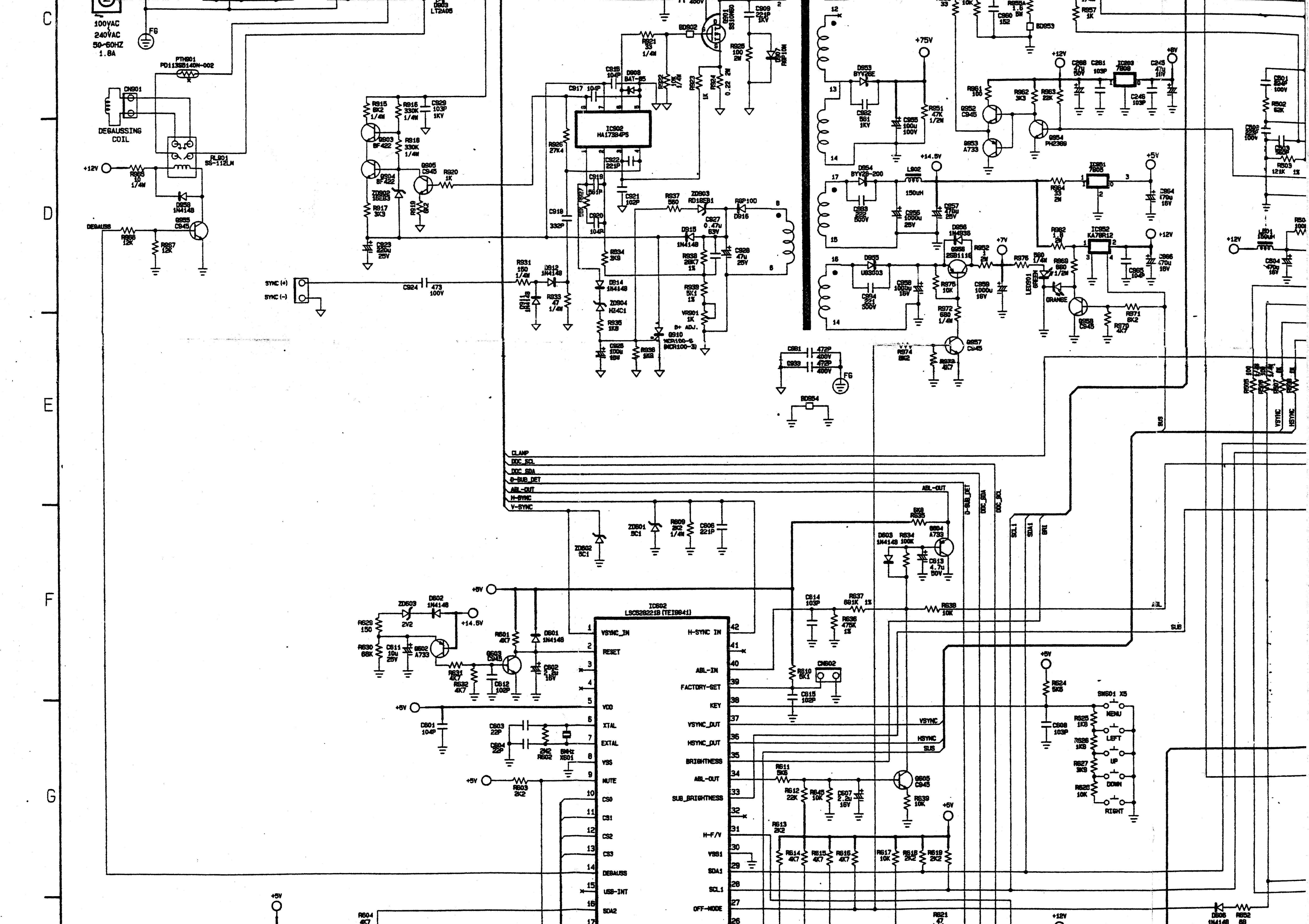
WARNING:

REPLACEMENT PARTS WHICH HAVE SPECIAL SAFETY CHARACTERISTICS ARE INDENTIFIED BY ⚠ SHADING ON THE SCHMATICS REPLACEMENT THESE CRITICAL COMNONENT WITH RECOMMENDED REPLACEMENT PARTS. DON'T DEGRADE THE SAFETY OF SET THROUGH IMPROPER SERVICING.
CONTROL (S) MARKED * IS PERMANENTLY FROZEN.
DON'T ATTEMPT TO DEFEAT OR IMPROPERLY REPLACE.
PARTS VALUES ARE SUBJECT TO CHANGE WITHOUT NOTICE.









C
D
E
F
G
100VAC
240VAC
50-60HZ
1.8A
FG
PTH901
PD113SB140N-002
CN901
DEGAUSSING
COIL
RL901
SS-112LM
+12V
R955
10
1/4W
D958
1N4148
DEGAUSS
R966
12K
R967
12K
Q955
C945
D903
LT2A05
R915
8K2
1/4W
R916
330K
1/4W
C929
103P
1KV
Q903
BF422
R918
330K
1/4W
Q904
BF422
Q905
C945
R920
1K
ZD902
16EB3
R917
3K3
R919
8K2
C923
220u
25V
SYNC (+)
SYNC (-)
C924
473
100V
R931
150
1/4W
D912
1N4148
D911
1N4148
R933
47
1/4W
R921
33
1/4W
BD902
Q901
SSS10N60
C909
221P
1KV
R925
100
2W
D907
RGP10M
C916
104P
D908
BAT-85
C917
104P
R922
10K
1/4W
R923
1K
R924
0.22
2W
IC902
HA17384PS
R926
27K4
C922
221P
C919
561P
R927
C920
104P
C921
102P
C918
332P
R937
560
ZD903
RD18EB1
RGP10D
D916
C927
0.47u
63V
D915
1N4148
R934
3K9
R938
28K7
1%
C928
47u
25V
D914
1N4148
ZD904
HZ4C1
R935
1K8
R939
5K1
1%
VR901
1K
B+ ADJ.
Q910
MCR100-6
(MCR100-3)
C925
100u
16V
R936
1K8
C981
472P
400V
C939
472P
400V
BD954
+75V
D953
BYV26E
C982
881
1KV
C955
100u
100V
R951
47K
1/2W
D954
BYV28-200
L902
150uH
+14.5V
C983
222
500V
C956
1000u
25V
C957
470u
25V
D955
UG3003
C984
221
500V
C958
1000u
16V
D956
1N4936
Q956
2SB1116
R975
10K
R952
2W
+7V
C959
1000u
16V
R972
680
1/4W
Q957
C945
R974
8K2
R973
4K7
R976
LED901
GREEN
ORANGE
R969
680
1/2W
Q958
C945
R970
4K7
R971
8K2
R957
1K
C960
152
BD953
+12V
R961
100
R962
3K3
R963
22K
Q952
C945
Q953
A733
Q954
PH2369
C288
47u
50V
C281
103P
IC203
7808
C246
103P
C245
47u
16V
+8V
IC951
7805
R964
33
2W
+5V
C964
470u
16V
R982
1.8
2W
IC952
KA78R12
C965
104P
C966
470u
16V
C501
104P
100V
R502
82K
C502
100V
C503
R503
121K 1%
L501
150uH
C504
470u
16V
R505
R506
R507
R508
BUS
VSYNC
HSYNC
CLAMP
DDC_SCL
DDC_SDA
D-SUB_DET
ABL-OUT
H-SYNC
V-SYNC
ZD601
5C1
R609
2K2
1/4W
C606
221P
ZD602
5C1
D-SUB_DET
DDC_SDA
DDC_SCL
R635
6K8
Q604
A733
D603
1N4148
R634
100K
C613
4.7u
50V
SCL1
SDA1
BRI
R637
681K 1%
R638
10K
R636
475K
1%
C614
103P
ABL
SUB
+5V
ZD603
2V2
D602
1N4148
R629
150
R630
68K
C611
10u
25V
Q602
A733
R631
4K7
R632
4K7
C612
102P
Q603
C945
R601
4K7
D601
1N4148
C602
2.2u
16V
C601
104P
C603
22P
C604
22P
2K2
R602
8MHz
X601
R603
2K2
IC602
LSC528221B (TEI8841)
1 VSYNC_IN
2 RESET
3
4
5 VDD
6 XTAL
7 EXTAL
8 VSS
9 MUTE
10 CS0
11 CS1
12 CS2
13 CS3
14 DEGAUSS
15 USB-INT
16 SDA2
17
42 H-SYNC IN
41
40 ABL-IN
39 FACTORY-SET
38 KEY
37 VSYNC_OUT
36 HSYNC_OUT
35 BRIGHTNESS
34 ABL-OUT
33 SUB_BRIGHTNESS
32
31 H-F/V
30 VSS1
29 SDA1
28 SCL1
27 OFF-MODE
26
R610
5K1
CN602
C615
102P
VSYNC
HSYNC
SUS
R611
5K6
R612
22K
R645
10K
C607
2.2u
16V
Q605
C945
R639
10K
R613
2K2
R614
4K7
R615
4K7
R616
4K7
R617
10K
R618
2K2
R619
2K2
R624
5K6
C608
103P
SW601 X5
MENU
LEFT
UP
DOWN
RIGHT
R625
1K8
R626
1K8
R627
3K9
R628
10K
R604
4K7
R621
47
D606
1N4148
R652
68

100VAC
240VAC
50-60HZ
1.8A
FG
PTH801
PD113B8140N-002
CN901
DEGAUSSING COIL
RL801
SS-112LM
D858
1N4148
Q855
C945
R868
12K
R867
12K
R915
8K2
1/4W
R916
330K
1/4W
C929
103P
1KV
Q903
BF422
R818
330K
1/4W
Q904
BF422
ZD902
16E23
R917
3K3
Q905
C945
R920
1K
R919
4K2
C923
220u
25V
SYNC (+)
SYNC (-)
C924
473
100V
C915
104P
D908
BAT-85
C917
104P
IC902
HA17394PS
R922
17K
R923
1K
R924
0.22 2W
R926
27K4
C922
221P
C919
561P
C921
102P
C918
332P
C920
104P
R927
56K
R937
560
ZD903
RD18EB1
RBP100
D916
C927
0.47u
63V
D915
1N4148
R938
28K7
1%
C928
47u
25V
R934
3K9
D914
1N4148
ZD904
MZ4C1
R935
1K8
R939
5K1
1%
VR901
1K
B+ ADJ.
Q910
MCR100-6
(MCR100-8)
C926
100u
16V
R936
1K8
R931
150
1/4W
D912
1N4148
D911
1N4148
R933
47
1/4W
D901
BS10046D
BD902
R921
1K
1/4W
R925
100
2W
D907
RBP16M
D853
BYV26E
C852
561
1KV
C855
100u
100V
R851
47K
1/2W
+75V
D854
BYV28-200
C853
222
500V
L902
150uH
C857
470u
25V
C856
1000u
25V
+14.8V
D856
1N4936
Q856
2SB1116
R852
1
2W
R876
1
2W
+7V
C858
1000u
16V
D855
UB3003
C854
222
500V
R875
10K
R872
680
1/4W
C859
1000u
16V
LED901
GREEN
ORANGE
R869
680
1/2W
Q858
C945
R871
8K2
R870
4K7
R874
8K2
Q857
C945
R873
4K7
C861
472P
400V
D933
472P
400V
BD854
R861
100
Q852
C945
Q853
A733
R862
3K3
R863
22K
Q854
PH2369
C860
152
BD853
R857
1K
+12V
C866
47u
16V
C861
103P
IC859
7808
C245
47u
16V
C245
103P
+8V
C862
561
1KV
C863
100u
100V
R851
47K
1/2W
+14.8V
D854
BYV28-200
C853
222
500V
L902
150uH
C857
470u
25V
C856
1000u
25V
IC851
7805
+5V
R864
33
2W
C864
470u
16V
D856
1N4936
Q856
2SB1116
R852
1
2W
+7V
R876
1
2W
IC852
KA78R12
+12V
C866
470u
16V
C865
104P
D855
UB3003
C858
1000u
16V
C854
222
500V
R875
10K
R872
680
1/4W
C859
1000u
16V
LED901
GREEN
ORANGE
R869
680
1/2W
Q858
C945
R871
8K2
R870
4K7
R874
8K2
Q857
C945
R873
4K7
C861
472P
400V
D933
472P
400V
BD854
FG
+12V
R861
100
Q852
C945
Q853
A733
R862
3K3
R863
22K
Q854
PH2369
C860
152
BD853
R857
1K
C801
R802
62K
C802
R803
121K
1%
+12V
C804
470u
16V
R804
CLAMP
DDC_SCL
DDC_SDA
D-SUB_DET
ABL-OUT
H-SYNC
V-SYNC
ZD602
5C1
ZD601
5C1
R809
2K2
1/4W
C806
221P
ABL-OUT
R835
Q804
A733
D803
1N4148
R834
100K
C813
4.7u
50V
D-SUB_DET
DDC_SDA
DDC_SCL
SCL1
SDA1
BRI
+5V
ZD603
2V2
D802
1N4148
+14.5V
R628
150
R630
68K
C811
10u
25V
Q802
A733
R631
4K7
R632
4K7
C812
102P
R601
4K7
D801
1N4148
Q803
C945
C802
10u
16V
C814
103P
R837
681K
1%
R836
475K
1%
R838
10K
IC802
LSCS28221B (TEI9841)
VSYNC_IN
RESET
VDD
XTAL
EXTAL
VSS
MUTE
CS0
CS1
CS2
CS3
DEBAUSS
USB-INT
SDA2
H-SYNC IN
ABL-IN
FACTORY-SET
KEY
VSYNC_OUT
HSYNC_OUT
BRIGHTNESS
ABL-OUT
SUB_BRIGHTNESS
H-F/V
VSS1
SDA1
SCL1
OFF-MODE
CN802
R810
5K1
C815
102P
C801
104P
C803
22P
C804
22P
2M2
R602
6MHz
X601
R803
2K2
R811
5K6
R812
22K
R645
10K
C807
2.2u
16V
Q805
C945
R839
10K
R813
2K2
R614
4K7
R615
4K7
R616
4K7
R617
10K
R618
2K2
R619
2K2
+5V
R824
5K6
C808
103P
SW601 X5
MENU
LEFT
UP
DOWN
RIGHT
R825
1K8
R826
1K8
R827
1K8
R828
10K
ABL
SUB
VSYNC
HSYNC
SUB
BUS
R821
47
D806
1N4148
R852
68

IC501
TDA4854
HFLB
XRAY
BOP
BSENS
BIN
BDRV
PGND
HDRV
XSEL
VCC
EWDRV
VOUT2
VOUT1
VSYNC
HSYNC
CLAMP
FOCUS
HPLL2
HCAP
HREF
HPLL1
SGND
VCAP
VREF
VAGC
ASCOR
SDA
SCL
KUNLOCK
T501
RL501
IC4D1
TDA4866
IC5B2
LM324
IC5B3
LM324
IC5B4
LM324
VR501
4K7
H-CENTER
VR502
47K
HV-ADJ
RL501
W-LIM1
CN503-H
V-DY
CN503-V
V-DY
L502
7mH
L503
W-LIM2
L505
130uH
L506
2u2
100V
BP
L501
150uH
BLANK
MUTE
SUB
EWDRV
VSYNC
HSYNC
SCL
SDA
+12V
+14.5V
+52V
+7V
+5V
B+
ABL
ZD501
BC1
ZD502A
6.2EB3
ZD503
24EB3
ZD504
12EB2
ZD505A
ZD506A
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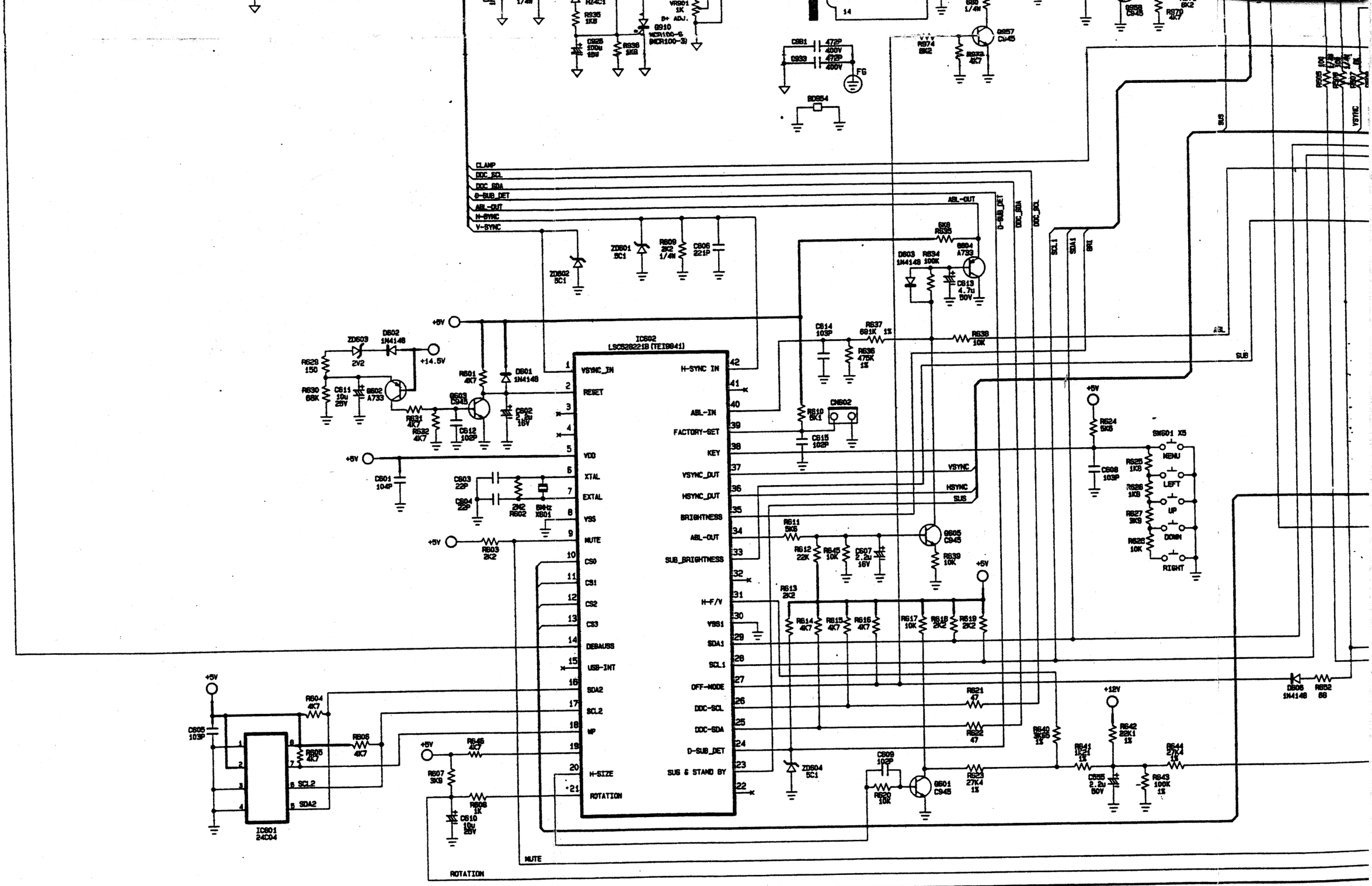
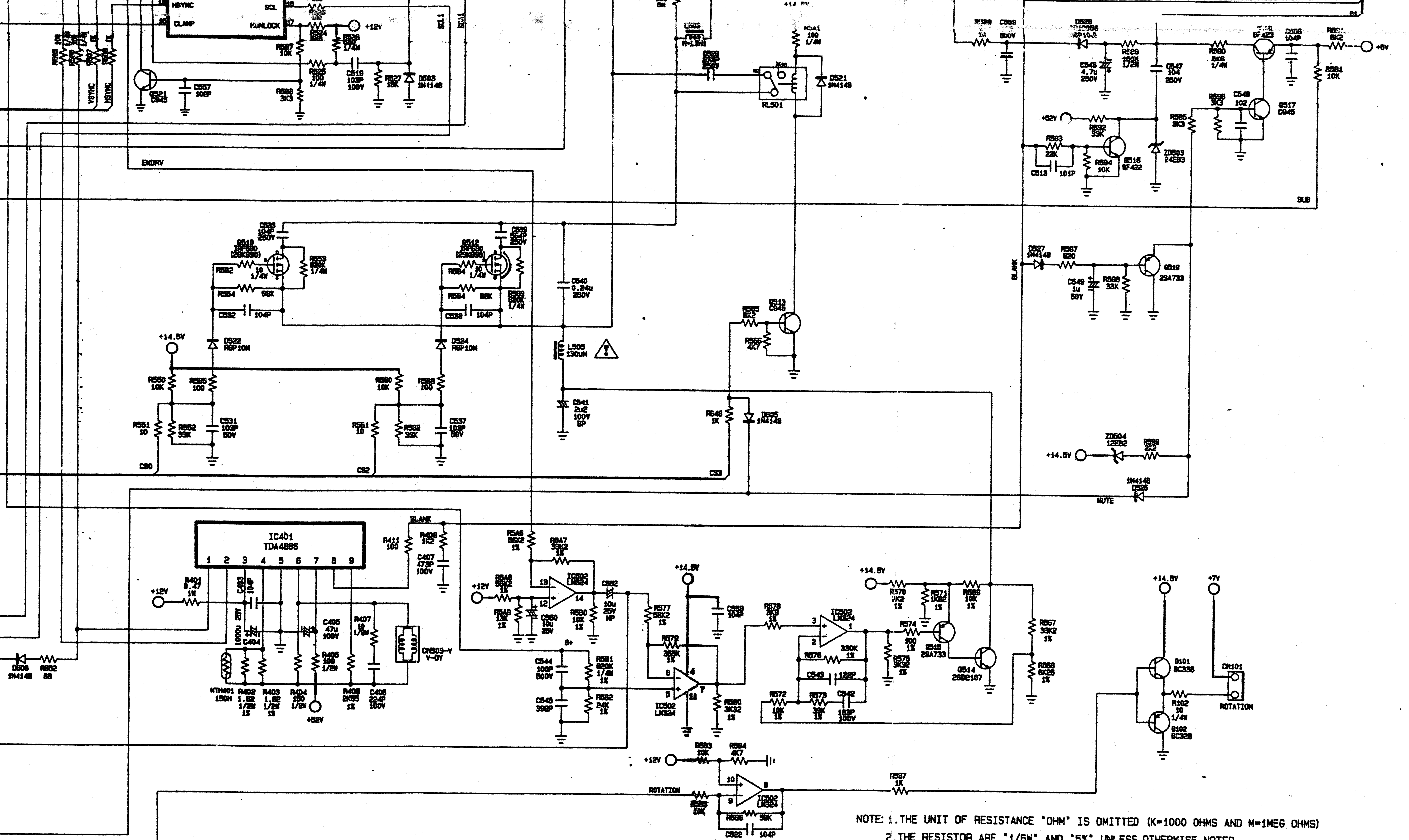


E/C RECORD

REV.3


HSYNC
CLAMP
SCL
H/UNLOCK
+12V
R587 10K
R588 3K3
R525 100 1/4W
C519 103P 100V
R527 18K
D503 1N4148
Q521 C945
C557 102P
VSYNC
HSYNC
EWDRV
C533 104P 250V
Q510 IRF630 (2SK890)
R582 10 1/4W
R553 680K 1/4W
R554 68K
C532 104P
+14.5V
D522 RGP10M
R550 10K
R555 100
R551 10
R552 33K
C531 103P 50V
CS0
Q512 IRF630 (2SK890)
C539 104P 250V
R564 68K
C538 104P
D524 RGP10M
R560 10K
R559 100
R561 10
R562 33K
C537 103P 50V
CS2
C540 0.24u 250V
L505 130uH
C541 2u2 100V BP
RL501
D521 1N4148
Q513 C945
R565 8K2
R566 4K7
R648 1K
D805 1N4148
CS3
C559 500V
D528 RGP10J
C546 4.7u 250V
C547 104 250V
R590 8K6 1/4W
BF423
C556 104P
R581 10K
+5V
+52V
R592 33K
R593 22K
C513 101P
R594 10K
Q518 BF422
ZD503 24EB3
R595 3K3
R596 3K3
C548 102
Q517 C945
SUB
BLANK
D527 1N4148
R597 820
C549 1u 50V
R598 33K
Q519 2SA733
ZD504 12EB2
R599 2K2
1N4148 D526
MUTE
IC401 TDA4866
R401 0.47 1W
C403 104P
C404 1000u 25V
C405 47u 100V
R407 10 1/2W
R405 100 1/2W
CN503-V V-DY
NTH401 150W
R402 1.82 1/2W 1%
R403 1.82 1/2W 1%
R404 150 1/2W
R406 2K55 1%
C406 224P 100V
R411 100
R408 1K2
C407 473P 100V
D806 1N4148
R652 68
R5A6 56K2 1%
R5A7 33K2 1%
R5A8 56K2 1%
R5A9 13K 1%
C560 10u 25V
IC502 LM324
R580 10K 1%
C552 10u 25V NP
C544 100P 500V
C545 392P
R581 820K 1/4W 1%
R582 24K 1%
R577 56K2 1%
R579 365K 1%
C558 104P
R560 3K32 1%
R578 3K9 1%
R576 330K 1%
C543 122P
R572 10K 1%
R573 39K 1%
C542 183P 100V
R570 2K2 1%
R571 1K82 1%
R569 10K 1%
R574 100 1%
R575 3K32 1%
Q515 2SA733
Q514 2SD2107
R567 33K2 1%
R568 8K25 1%
+7V
Q101 BC338
Q102 BC328
R102 10 1/4W
CN101
ROTATION
R583 10K
R584 4K7
R585 20K
R586 39K
C522 104P
R587 1K

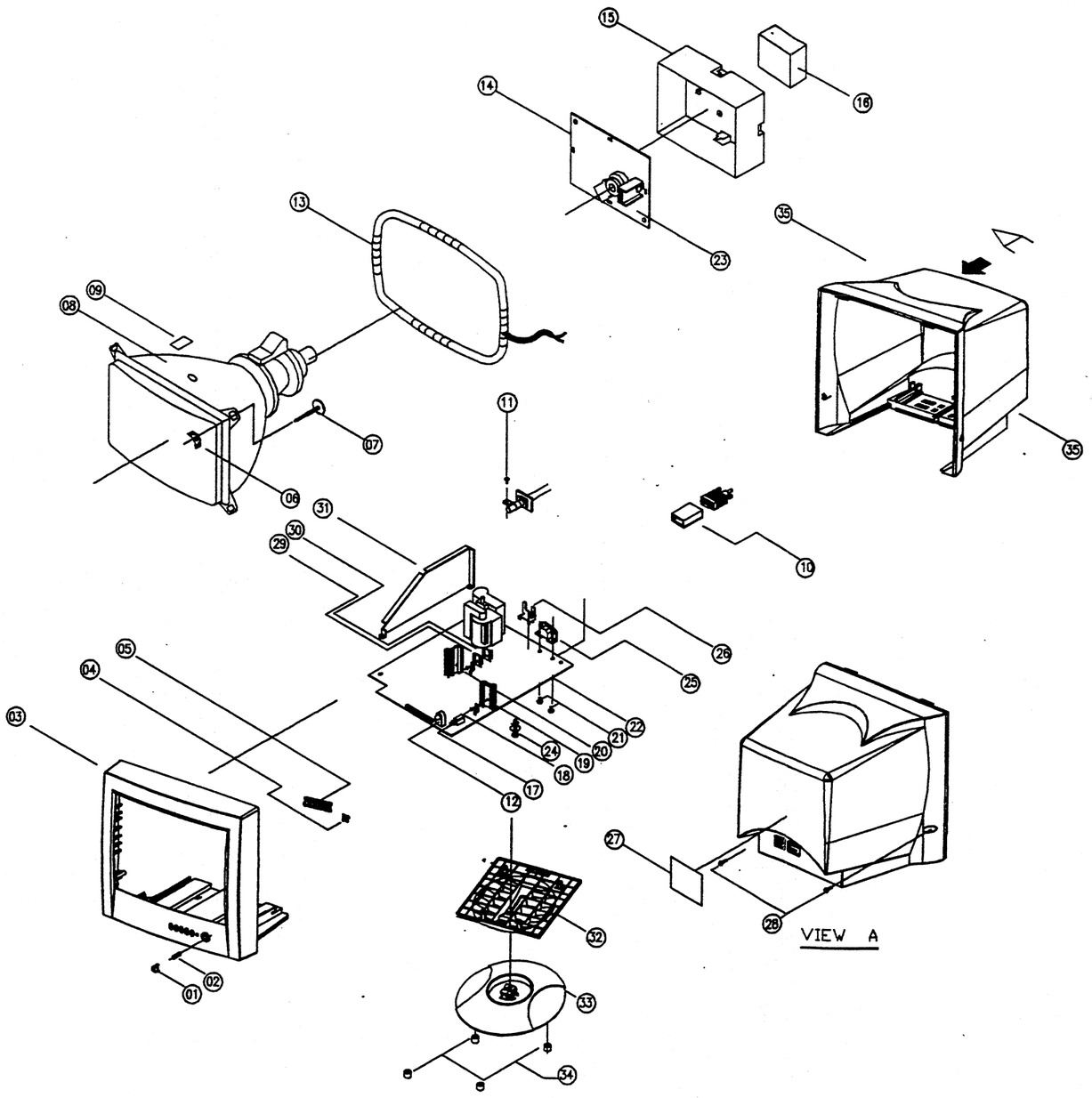
NOTE: 1. THE UNIT OF RESISTANCE "OHM" IS OMITTED (K=1000 OHMS AND M=1MEG OHMS)
2. THE RESISTOR ARE "1/6W" AND "5%" UNLESS OTHERWISE NOTED.
3. ALL CAPACITORS RATING ARE "50V" UNLESS OTHERWISE NOTED.

APPROVED	M. J. Shen	08 .16 .99"
CHECKED	C. F. Lee.	08 .16 .99"
DESIGN	Y. H. CHEN	08 .16 .99"
DRAWN	WU	08 .16 .99"

DWG. NAME

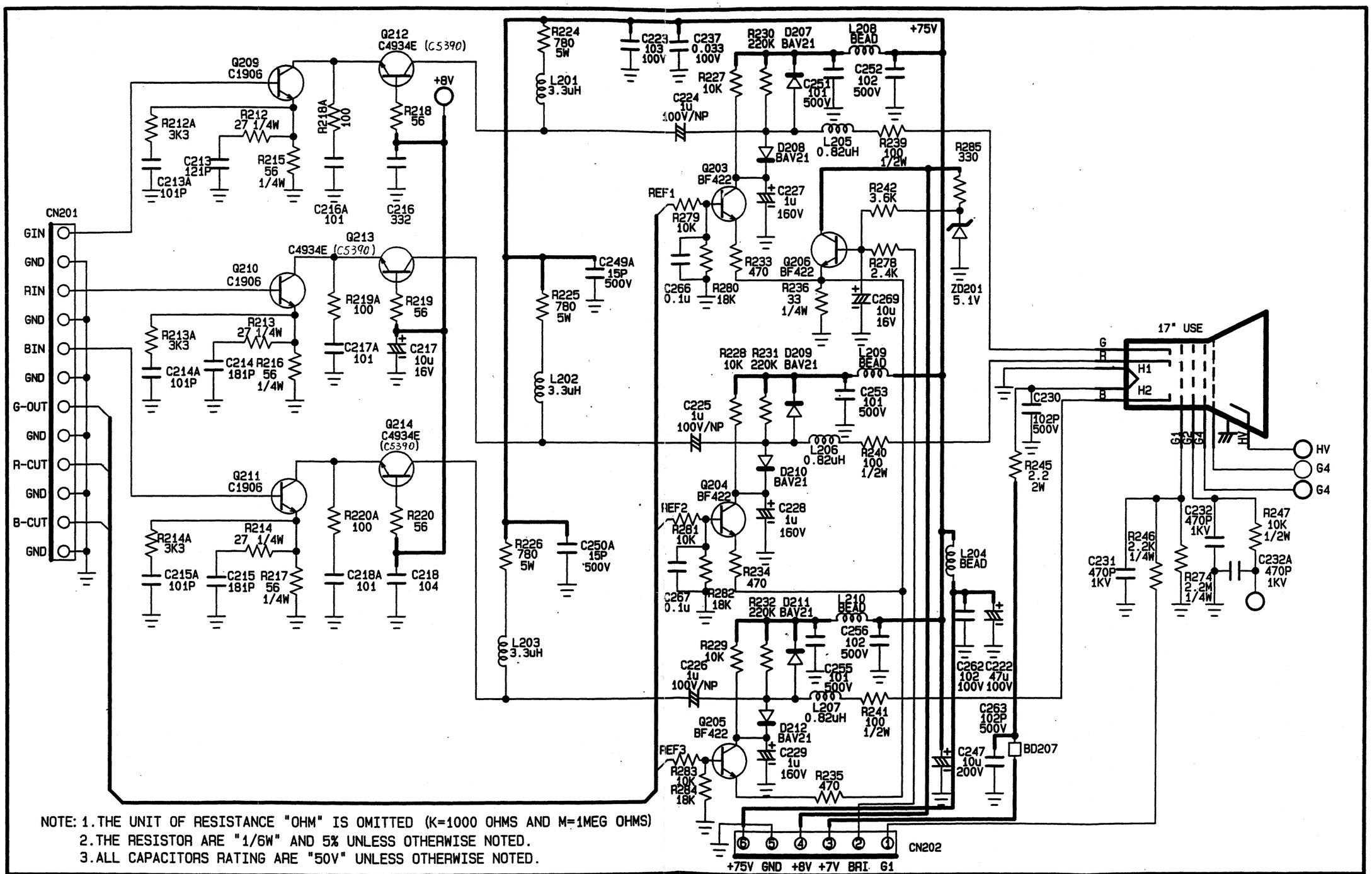
DWG. NO. 792TE770BMM25

項	件 名	件 號	材 質	尺 寸	重 量	備 註



NO	TITLE	TECO PART NO	QTY	REMARK
01	BUTTON-P	7021453006517	1	
02	SPRING	7021874004815	1	
03	FRONT PANEL	7021301032814	1	FOR DSOPC WHITE
04	LEN-P	7021404014318	1	
05	BUTTON-F	7021453006614	1	
06	SUPPORT CRT	7021504015516	4	
07	SCREW SPECIAL	780XX00211148	4	
08	CRT	7333021702000	1	HITACHI
09	LABLE	7021764051915	1	
10	PE SHEET	7021824006612	1	CABLE PACK
11	SCREW	780PS4008CB06	1	
12	LED HOLDER	7021404011416	1	
13	COIL DEGAUSSING	7351190009001	1	
14	CRT PWB ASSY	736TE570BG108	1	
15	SHIELD CASE	7021512003519	1	
16	CUSHION	7021614014515	1	
17	SW POWER	7352031004909	1	
18	SCREW	780PG3008CA06	1	
19	HEATSINK	7021524014125	1	
20	HEATSINK	7021524014028	1	
21	SCREW	780XX00165146	2	
22	MAIN PCB ASSY	736TE570BF101	1	
23	HEATSINK	7021524014311	3	VIDEO PCB
24	PCB HOLDER	7021404015217	1	
25	SOCKET AC	7737000102005	1	
26	SUPPORT	7021503012912	1	
27	LABLE	7831190000600	1	
28	SCREW	780PP4016CB08	2	
29	HEATSINK	7021524007625	1	Q920
30	WIRE SADDLE	7021404014911	1	
31	HEATSINK	7021522000933	1	Q 504
32	SWIVEL	7021401007019	1	
33	BASE	7021401007116	1	
34	RUBBER FOOT	7021614014019	4	
35	BACK COVER	7021311019719	1	
36				
37				
38				
39				
40				
41			1	
42				
43				
44				
45				

變更內容 REVISION		核定 APPROVED BY			比例 SCALE		圖名	
88.8.18 重新設計		審查 REVIEWED BY	王逸秀	8·17·99	X		DRAWN NAME	
第三角法		設計 DESIGNED BY	馮聖源	8·17·99	M M			
		製圖 DRAWN BY	馮聖源	8·17·99		ME	圖號 DRAWN NO.	
		規範 VENDOR						



NOTE: 1.THE UNIT OF RESISTANCE "OHM" IS OMITTED (K=1000 OHMS AND M=1MEG OHMS)
2.THE RESISTOR ARE "1/6W" AND 5% UNLESS OTHERWISE NOTED.
3.ALL CAPACITORS RATING ARE "50V" UNLESS OTHERWISE NOTED.

E/C RECORD						
	APPROVED	MACO SHEN	08.16.99"			
	CHECKED	C.F.Lee	08.16.99"			
	DESIGN	Y.H. CHEN	08.16.99"	DWG. NAME		DWG. NO.
	DRAWN	wu	08.16.99"			